



IMPERIAL AGRICULTURAL
RESEARCH INSTITUTE NEW DELHI

MGIPC—84—III 1 93—22 8 45—5 000.

NAGPUR UNIVERSITY JOURNAL

DECEMBER, 1935

No. 1

CONTENTS

	PAGE
Epigraphic Notes. By PROF. V. V. MIRASHI, M.A.	1
Need for Rewriting Pāṇini's Grammar. By S. P. CHATURVEDI, M.A. ..	5
An Investigation into the Effect of Manuring and Stage of Maturity on the Yield and Mineral Composition of Pasture Grass and Their Bearing on the Mineral Requirements of the Cattle of the Central Provinces. By D. V. BAL AND C. R. ATHAWALE	11
Interim Report on an Excavation in the Mahadeo Hills. By DR. G. R. HUNTER, M.A., D.PHIL. (OXON.)	28
Definition of Direct Knowledge in the Nyāya-Sūtras. By DR. JWALA PRASAD, PH.D. (CANTAB.)	58
Cultural Relationship between India and Persia from the Earliest Times to 1000 A.D. By SHAMS-UL-ULEMA M. A. GHANI, M.A., M.LITT. (CANTAB.)	63
Svayambhu and His Two Poems in Apabhraṃśa. By HIRALAL JAIN, M.A., LL.B.	70



Price Rs. 5.

MEMBERS OF THE EDITORIAL BOARD

CHAIRMAN

DR. G. R. HUNTER, M.A., D.PHIL. (OXON.)

MEMBERS

RAO BAHADUR M. B. KINKHEDE, B.A., B.L.

E. W. FRANKLIN, Esq., M.A., T.D. (LOND.)

D. V. BAL, Esq., L.AG.

DR. A. N. KAPPANNA, D.Sc.

DR. S. C. DHAR, D.Sc.

DR. JWLALA PRASAD, M.A., PH.D. (CANTAB.)

DR. H. C. SETH, M.A., PH.D. (LOND.)

DR. R. L. NIMLA, PH.D. (LOND.)

NAGPUR UNIVERSITY JOURNAL

DECEMBER, 1936

No. 2

CONTENTS



Price Rs. 5.

MEMBERS OF THE EDITORIAL BOARD

CHAIRMAN

DR. G. R. HUNTER, M.A., D.PHIL. (OXON.)

MEMBERS

RAO BAHADUR M. B. KINKHEDE, B.A., B.L.

E. W. FRANKLIN, ESQ., M.A., T.D. (LOND.)

RAO SAHEB D. V. BAL, L.AG., A.I.C., F.C.S. (LOND.)

DR. A. N. KAPPANNA, D.Sc.

DR. S. C. DHAR, D.Sc., P.R.S.

DR. JWALA PRASAD, M.A., PH.D. (CANTAB.)

DR. H. C. SETH, M.A., PH.D. (LOND.)

DR. R. L. NIRULA, B.Sc., PH.D. (LOND.)

NAGPUR UNIVERSITY JOURNAL

DECEMBER 1937

No. 3

CONTENTS

	PAGE
Byronic Satire. BY BOMAN H. MEHTA, B.A. (CANTAB.)	1
Biological Theories of Population. BY DR. H. C. SETH, M.A., PH.D. (LONDON)	10
An Odd Copper-Plate of the Vākāṭaka King Pravarasena II. BY PROF. V. V. MIRASHI, M.A.	20
Epigraphic Notes—III. BY PROF. V. V. MIRASHI, M.A.	29
Bṛ̥ngadūtam. BY PROF. S. P. CHATURVEDI, M.A., Vyākaraṇāchārya, Kāvyatīrtha	35
The Early Development of the Urdu Language. BY GHULAM MUSTAFA KHAN, M.A., LL.B.	68



Price Rs. 5.

MEMBERS OF THE EDITORIAL BOARD

CHAIRMAN

DR. G. R. HUNTER, M.A., D.Phil. (OXON.)

MEMBERS

RAO BAHADUR H. S. MUNJE, B.A., LL.B.

N. N. MITRA, Esq., B.Sc., T.D. (LOND.)

RAO SAHEB D. V. BAL, L.A.G., A.I.C., F.C.S. (LOND.)

DR. D. N. CHAKRAVARTI, D.Sc.

DR. N. G. SHABDE, D.Sc.

DR. JWALA PRASAD, M.A., Ph.D. (CANTAB.)

(offg. Chairman)

DR. H. C. SETH, M.A., Ph.D. (LOND.)

DR. R. I. NIRULA, B.Sc., Ph.D. (LOND.)

NAGPUR UNIVERSITY JOURNAL

DECEMBER 1938

No. 4

CONTENTS

	PAGE
Philosophy of the Prajñā-Pāramitās. BY DR. JWALA PRASAD, M.A., PH.D. (CANTAB.)	1
A Dynamic Theory of Population. BY DR. H. C. SETH, M.A., PH.D. (LONDON)	7
The Rise of the Hoyasalas. BY S. L. KATARE, M.A.	18
A Critical Examination of Alexander's Theory of Knowledge. BY S. N. L. SHRIVASTAVA, M.A.	26
One Aspect of Jaya Shankar Prasad. BY HARI DATTA DUBE, M.A.	36
Hazrat Sharfu'd-din Yahyā Manīrī's Contribution to the Earliest Urdu Language. BY GHULAM MUSTAFA KHAN, M.A., LL.B.	49
Reviews—	
Annual Report of the Archaeological Department, Baroda State, for the year 1936-37. V. V. M.	57
New Indian Antiquary, Vol. I, Nos. 1 and 2. H. N. S.	58



MEMBERS OF THE EDITORIAL BOARD

CHAIRMAN

DR. JWALA PRASAD, M.A., PH.D. (CANTAB.)

MEMBERS

RAO BAHADUR H. S. MUNJE, B.A., LL.B.

N. N. MITRA, ESQ., B.Sc., T.D. (LOND.)

RAO SAHEB D. V. BAL, L.AG., M.Sc. (AGR.), A.I.C., F.C.S. (LOND.)

DR. D. N. CHAKRAVARTI, D.Sc. (ALLAHABAD)

DR. N. G. SHABDE, D.Sc. (NAGPUR)

DR. H. N. SINHA, M.A., PH.D. (LOND.)

DR. H. C. SETH, M.A., PH.D. (LOND.)

DR. R. L. NIRULA, B.Sc., PH.D. (LOND.)

NAGPUR UNIVERSITY JOURNAL

DECEMBER 1939

No. 5

CONTENTS



MEMBERS OF THE EDITORIAL BOARD

CHAIRMAN

DR. JWALA PRASAD, M.A., PH.D. (CANTAB.)

MEMBERS

RAO BAHADUR H. S. MUNJE, B.A., LL.B.

N. N. MITRA, Esq., B.Sc., T.D. (LOND.)

RAO SAHEB D. V. BAL, L.AG., M.Sc. (AGR.), A.I.C., F.C.S. (LOND.)

DR. D. N. CHAKRAVARTI, D.Sc. (ALLAHABAD)

DR. N. G. SHABDE, D.Sc. (NAGPUR)

DR. H. N. SINHA, M.A., Ph.D. (LOND.)

DR. H. C. SETH, M.A., Ph.D. (LOND.)

DR. R. L. NIRULA, B.Sc., Ph.D. (LOND.)

EPIGRAPHIC NOTES.

BY PROF. V. V. MIRASHI, M.A.,
Head of the Sanskrit Department, Nagpur University.

1. Identification of Places mentioned in the Siwani Plates of the Vākāṭaka King Pravarasena II.

SEVERAL inscriptions discovered in the Central Provinces and Berar have been published in the *Epigraphia Indica*, the *Indian Antiquary* and other research journals, by Fleet, Kielhorn, Bhandarkar, Hiralal and other scholars. The editors have in many cases tried to identify the localities mentioned in these records. In some cases, however, they found no clue and gave up the task as hopeless, while in others the identifications they proposed do not appear to be convincing. I intend to examine from time to time in this journal the identifications proposed in the past and to suggest better ones if possible.

The Siwani plates of the Vākāṭaka king Pravarasena II were first edited by J. Princep in the *Journal of the Bengal Asiatic Society*, Vol. V, p. 726 ff. and subsequently by Fleet in the *Corpus Inscriptionum Indicarum*, Vol. III, p. 243 ff. They record the grant of the village Brahmapūraka near Karañja-viraka to a Brahmin named Devaśarman of the Maugdalya *gotra* and the Taittiriya *sākhā* of the Black Yajurveda. The village was situated in the Benṇākārparabhāga and was bounded on the south by Vaṭapūraka, on the east by Kiñihikheṭaka, on the north by Pavarajjavāṭaka and on the west by Kollapūraka.

Dr. Fleet could not identify the places mentioned above except Kollapūraka which, he thought, was 'possibly the modern Kolāpoor of the map, twenty-one miles south of Ellichpur'. This identification is open to several objections. The real name of the place near Ellichpur is not Kolāpoor but Kholāpur; besides, from the Ambe stone inscription of Kholeśvara, we learn that it was founded by Kholeśvara, a well-known general of the great Yādava King Śīṅghāṇa (13th century A.D.), who named it after himself and granted it as an *agrahāra* village to Brahmins.¹ Again, none of the other villages mentioned in the Siwani plates can be identified in the vicinity of Kholāpur, nor could Fleet identify the division Benṇākārparabhāga, in which the donated village was situated. Fleet's view cannot, therefore, be accepted.

¹ Cf. खोलापूराभित्वं चके बोग्धारमनुत्तमम् । तीरे परोऽव्या विपुलं तथान्यद्वास्तिनापुरम् ॥
G. H. Khare—*Sources of the Mediæval History of the Deccan* (Marāṭhi), p. 64.

Recently, while editing the Patna Museum plate of the same king Pravarasena II, Dr. Altekar of the Benares Hindu University has made another suggestion about the identification of one of the above places. The Patna Museum plate records the grant of the village Sri Parṇakā which was bounded by Brahmapūraka on the west, by Millukadratha on the east, by Darbhaviraka on the north and by Madhukajjhari on the south. About the identification of these places Dr. Altekar says : 'Of the places mentioned Brahmapura is the same village which was gifted away by the present donor by his Siwani plates ; I would identify it with Brāhmaṇwāḍā near Ellichpur in Berar. Madhukajjhari seems to be the same as Madhunadī on whose bank the village Charmāṅka of the Chammak plates was situated. The fact that Chammak is only four miles to the south of Ellichpur supports my identification. The other villages must have been in the vicinity of modern Ellichpur.'² If the above identifications proposed by Dr. Altekar are accepted, we should be able to locate most of the villages mentioned in the Siwani and Patna Museum plates in the vicinity of Chammak, about whose identification with Charmāṅka there is no doubt. There are several villages named Brāhmaṇwāḍā in Berar ; but which of them is meant by Dr. Altekar is not clear. It is noteworthy that none of them is within 15 to 20 miles of Chammak. Besides, none of the other villages in the Siwani and Patna Museum plates can be identified in the vicinity of Ellichpur or Chammak.

The statement in the Siwani plates that Brahmapūraka was in the Bennākāparabhāga is of utmost importance, but its significance has not been noticed till now. Last year Mr. Wellsted, Manager of the Manganese Mines at Mansar near Rāmṭek, kindly sent me a set of copper-plates of Pravarasena II, recently discovered at Tirodi in the Bālāghāṭ district, C. P. These plates record the grant of the village Kośambakhaṇḍa situated in the western division of Bennākāṭa. As I have shown in my article on the plates which will soon be published in the *Epigraphia Indica*, Kośambakhaṇḍa is evidently Kosambā near Tirodi. It lies about 20 miles west of the Waingāṅgā and was, therefore, evidently included in the western division of the Bennākāṭa, which seems to be a district comprising territory on both the banks of the Waingāṅgā. This river is called Veṇā in the Mahābhārata,³ Padmapurāṇa⁴ and Matsyapurāṇa⁵. The Mārkandeyapurāṇa calls it Veṇya. Veṇvā in the Vāyu⁶ and Vinnā in the Kūrma Purāṇa⁷.

² J.B.O.R.S., 14, 472.

³ *Sabhāpārvan* (Chitrashālā Press), Adhyāya 31, Śl. 12.

⁴ *Swarga Khanda* (Venkateshvara Press), Adhyāya 39, Śl. 30-32.

⁵ Adhyāya 114, Śl. 27-28 (Venkateshvara Press Ed.).

⁶ Adhyāya 48, Śl. 102.

⁷ Adhyāya 47, Śl. 32.

are evidently corrupt forms of the Sanskrit name Venyā. Bennā in the Bennākāṭa of the Tirodi plates and Benṇā in the Benṇākāṛparabhāgā of the Siwani plates, refer to the Waingāṅgā. The villages of the Siwani, like those of the Tirodi plates, were evidently included in the ancient Waingāṅgā district and must, therefore, be searched for in the vicinity of that river and not in distant Berar.

With this clue I could identify most of the villages mentioned in the Siwani plates. Kārañjā, about 6 miles from Āmgaon, a railway station on the Calcutta-Nagpur line, is probably Karañjaviraka. Brahmapūraka the donated village is evidently Bāhmnl about three or four miles from Kārañjā. Kollapūraka of the plates is now represented by Kulpā near Kārañjā about five miles to the west of Bāhmnl. Pavarajjavāṭaka and Vaṭapūraka may be the modern Paraswāḍā and Badgaon near Bāhmnl. They do not, however, lie to the north and south of Bāhmnl as stated in the plates, but are situated in the opposite directions. The official who drafted the charter may have been responsible for the mistake. About the identification of Brahmapūraka, Karañjaviraka and Kollapūraka, there is no doubt and as these places lie within 20 to 25 miles from the eastern bank of the Waingāṅgā, they may be said to have been included in the ancient Benṇākāṛparabhāgā as stated in the plates.

The identification of these villages is important from another point of view also. It has been generally supposed that the Vākāṭakas were ruling over a country corresponding to modern Berar. The above identifications would show that the country under the direct rule of the Vākāṭakas extended beyond the Waingāṅgā up to the confines of the Mahākosala. The country between the Wardhā and the Waingāṅgā also was called Vidarbha in ancient times as is clear from the *Mālavikāgnimitra* of Kālidāsa. This also incidentally disproves R. B. Hiralal's theory that Bhāndak in the Chāndā district was the ancient capital of Mahākosala.

2. The Places mentioned in the Deoli Plates of the Rāshtrakūṭa King Krishṇa III.

These plates were first published by Dr. R. G. Bhandarkar in the *Journal of the Bombay Branch of the Royal Asiatic Society*, Vol. XVIII. They were subsequently re-edited with some corrections by the same scholar in the *Epigraphia Indica*, Vol. V. They record the grant of the village Tālā-purumshaka in the Nāgapura-Nandivardhana district to a Brahmin named Ḫshiyappa. The village was bounded on the east by Mādāṭaḍhin-dhara, on the south by the river Kanhanā, on the west by the village of Mohamagrāma and on the north by Vadhrira. Dr. Bhandarkar proposed the following identifications:—'Of these, Kanhanā is the present river of

the same name, which has a course from the north-west of Nagpur to the south-east ; Mohamagrāma is the Mohgaon of the present day, situated in the Chhindwādā district, about 50 miles to the north-west of Nagpur ; and Vadhrīra is Berdi in the vicinity of that town. Nothing corresponding to the remaining two names appears on the map and I am not able to identify them.⁸

These identifications do not appear to be satisfactory ; for, as pointed by R. B. Hiralal,⁹ the Kanhanā river which, according to the plates, bounded the donated village on the south, is far away (about 15 miles) from Mohgaon which, in Dr. Bhandarkar's opinion, represents one of the boundary villages ; besides, it flows not to the south, but to the east of Mohagaon. Again Berdi is not to the north-east of Mohagaon as required, but lies about six miles to the east. We must, therefore, look for these villages elsewhere.

The statement that the donated village was bounded on the south by the Kanhanā river furnishes us with a clue to the identification of these places. It is quite clear that we must search for them within three or four miles from the northern bank of the Kanhanā. Mohagaon, in the Nagpur district, about 20 miles north of Nagpur, seems, therefore, to represent the Mohamagrāma of the plates. The Kanhanā flows at a distance of only three miles south of this Mohagaon. Paindhree, which lies about two miles north-east of Mohagaon, probably represents the Vadhrīragrāma of the plates. The other villages cannot be identified.

The district in which the donated village was situated was named Nāgapura-Nandivardhana which probably means Nandivardhana near Nagpur.¹⁰ As I have shown elsewhere, Nandivardhana is the earliest capital of the Vākātakas known from inscriptions. The Poona plates of the Vākātaka queen Prabhāvatiguptā¹¹ are issued from Nandivardhana. It was subsequently captured by Bhavattavarman of the Nala dynasty, whose Riddhapur plates¹² are issued from the same city. The place seems to have retained some importance down to the tenth century A.D. as appears from the present plates. It seems to have then given its name to a district. As Mr. Wellsted has shown,¹³ its site is now indicated by Nānpur, an ancient fortified place now in ruins, about 20 miles north-west of Ramtek. Mohagaon is only 15 miles, as the crow flies, north-east of Nānpur, and was, therefore, evidently included in the ancient Nāgapura-Nandivardhana division.

⁸ *Ep. Ind.*, 5, p. 192.

⁹ *List of Inscriptions in C.P. and Berar* (Second Edn.), p. 10.

¹⁰ There are several such joint place-names in Berar ; cf. Bārsi-Tākli (Tākli near Bārsi).

¹¹ *Ep. Ind.*, 15, 39 ff.

¹² *Ibid.*, 19, 100 ff.

¹³ *J.B.A.S.*, 29, 159 ff.

NEED FOR REWRITING PĀNINI'S GRAMMAR.

By S. P. CHATURVEDI, M.A.,
Vyākaranāchārya, Kāyatirīha, Morris College, Nagpur.

Introduction.

THE greatest achievement of the Indian mind is to be seen in the sphere of Grammatical Science, wherein पाणिनि's name reigns supreme. पाणिनि, acknowledged as the foremost grammarian of the world, has rendered eminent services to the Science of Language. For originality of plan and analytical ability, his grammatical system is unparalleled in the history of languages. Accurate and complete in its design, it is, at the same time, a "perfect miracle of condensation". In his marvellously concise work, अष्टाव्याख्या, he has dealt with all the phenomena of the Vedic and classical Sanskrit so scientifically and thoroughly that he eclipses all his predecessors and successors. During the last 2,500 years, continuous attempts have been made to interpret and explain his work by a number of scholars—कात्यायन and पतंजलि, वामन and जयादित्य, भट्टोजीदीक्षित and नागोर्जुभट्ट—and his work has been studied with living interest in India by Sanskrit grammarians.

An acquaintance with the recently developed Science of Comparative Philology has influenced the modern study of the Sanskrit language. It is no longer studied by Sanskrit Pandits only. It is now studied with scientific insight by scholars trained in the Western methods of critical studies. The Sanskrit language is not studied in isolation from the sister languages of the ancient world. Nor is the classical Sanskrit studied as divorced from the Vedic Sanskrit. As a result of the comparative study of ancient languages, our outlook has widened and we interpret and explain the phenomena of the Sanskrit language in the light of researches made after a close study of the Sanskrit (Vedic and classical) and other allied languages. We accept the Pāṇinian rules and their traditional interpretations not before a critical examination. In the following lines, we venture to examine a few points in the Pāṇinian scheme of grammar that have to be considered in meeting the modern requirements of the Sanskrit Grammar.

I

On closer examination, formations of some words appear to have been wrongly accounted for by पाणिनि. They have to be critically examined and corrected. To elucidate the point, we will take some typical examples into consideration.

(a) पाणिनि lays down in a सूत्र¹ that, in the conjugational tenses, the (roots) वृथा, वृग्ना, वृद्धा, etc. (belonging to the I conjugation) assume the form तिष्ठति, जिग्नति and पश्यति, respectively. Thus he accounts for the forms तिष्ठति, जिग्नति and पश्यति. Now it will appear that the more correct and scientific way of accounting the first two forms is to regard them as the reduplicated forms of the वृथा and वृग्ना (belonging to the III conjugation). As from the roots वृहु and वृभी, we get the reduplicated forms चुहोति and चिभेति, so we can get तिष्ठति from वृथा and जिग्नति from वृग्ना. The third example पश्यति is not from the वृद्धा but from the वृस्त् (to see) [cf. स्पशः (watchmen, spies) in Rg.] belonging to the IV conjugation, with initial स् dropped as in the word पश्यशाहिक. As चलति from वृत्, so पश्यति from वृस्त् = पश् (a Vedic root).

(b) The present tense form श्वेति is accounted for by पाणिनि as from वृश् (belonging to the I conjugation) which is changed to श् and has, as an exceptional case, तु suffix instead of अ (श्वा), the usual suffix of the I conjugation.² The simple way to explain the form is to regard it as coming from वृश् (V conjugation). As चिनोति from वृचि, so श्वेति from वृश्.

(c) दम्पती, an optional form for जायापती (wife and husband) has been regarded as an irregular formation (निपातन) by पाणिनि.³ वामन, जयादित्य and भष्टुजीदीक्षित further say that there is a substitution (आदेश) of दम् for जाया. Here also we may say that the natural way of explaining the form दम्पती is to split the form in two दम् + पती (षष्ठीसमास) — the masters of the house. The word दम्, a by-form of दम्, occurs in Rg. in the sense of a house, e.g., 'वर्धमानं से दमे' (Rg. 1-1-8). Also cf. the Latin word 'Domus' (a house).

(d) Now we take the example of the periphrastic future (अनश्वतनभविष्य or the 2nd future). This is taken by पाणिनि as a separate non-conjugational tense.

कर्ता, कर्तारौ, कर्तारः — 3rd person.

कर्तासि, कर्तास्थः, कर्तास्थ — 2nd person.

कर्तास्मि, कर्तास्मः, कर्तास्मः — 1st person.

The students of the Pāṇinian system of Grammar are perhaps not aware that the periphrastic future forms are simply दृढन्तीय तृत्यप्रत्ययान्तीय forms in the 3rd person and they are joined to the present tense

¹ पाणिनिः . . . , अष्टाव्याख्या (7-8-88).

² मुदुः श्व, (3-1-74).

³ राजदन्तादितु परम् (2-2-31).

2nd person and 1st person forms of $\sqrt{\text{अस्}}$ in the 2nd and 1st person respectively. कर्तासि = कर्ता + असि, कर्तास्मि = कर्ता + अस्मि. Dual and plural forms are simply based on analogy.

II

To give the students a scientific insight, our modern way of teaching grammar should offer ' Rationale ' for grammatical changes, which can at best be inferred only in the Pāṇinian system.

(a) Why is अ sound retained in अस्ति (the third person singular in the present tense of $\sqrt{\text{अस्}}$) and dropped in लः (the dual number)? Students should be taught *explicitly* that the difference is due to the shifting of accents. In लः, अ sound is dropped because of the shifting of the accent from अ to तः (root to termination) and consequent weakening of the अ sound.

(b) Pāṇini teaches⁴ that $\sqrt{\text{अस्}}$ has got अ॒ form in non-conjugational tenses (e.g., वभूत् in लिट्) and अस्॑ form in conjugational tenses (e.g., अस्ति in लट्). But this is not wholly correct. We have got अस्॑ forms of the root in लिट् in the Vedic literature [cf. आस (was)]. Our grammar should state clearly that the non-conjugational forms of $\sqrt{\text{अस्}}$ existing in the Vedic Literature have disappeared in the classical Sanskrit and we have to borrow forms from the $\sqrt{\text{ए॒}}$.⁵

(c) The declensional forms of युध्मद् and अस्मद् are a conglomeration of forms from various stems (त्व—म, युव—आव, तव—मम, यूय—यय, etc.). The complete declensional forms of these stems being lost, an attempt was made to complete the scheme by borrowing forms of other stems. But Pāṇinian grammar teaches us that all the declensional forms have their stem in युध्मद् and अस्मद्!

(d) An important Phonetic Law, स्वरभक्ति (inserting a short vocalic sound between two conjunct consonants for ease in pronunciation) is nowhere directly hinted in the Pāṇinian system⁶ (though it is known to the writers of प्राणिशास्त्र्य's and पिंगलसूत्र्य's on Prosody). This Law is frequently applied in Prākṛta languages (cf. रथन → रतन → रत्न). But there are examples of the working of this Law in classical Sanskrit also. The word मनोरथ (desire) can be best understood by regarding it as an example of स्वरभक्ति. मनोरथ → मनोरथं.

* अस्तेभूः (2-4-52).

⁶ Only for Vedic forms पाणिनि says ' छन्दस्युभयथा ' (6-4-86.)—विभवम् or विभवम्.

III

In the Pāṇinian system of grammar, there are some so-called maxims of interpretation, which are often resorted to by commentators in interpreting or discussing the meanings of पाणिनि's सूत्र's (e.g., अन्योन्याश्रयदोष^० परिहार and वाक्यापरिसमासिन्याय). The application of these maxims of interpretation betrays a very unfortunate ignorance of some fundamental principles on which the अशाख्यायी is based. As shown by me elsewhere,^१ the doctrines of अन्योन्याश्रयदोष and वाक्यापरिसमासिन्याय cut at the very root of the grammatical system and their acceptance will lead to many complications. The अशाख्यायी of पाणिनि is a whole inter-connected work. Each सूत्र should be interpreted in the light of what we know from other सूत्र's and not in isolation from other सूत्र's.

Thus applying this widely accepted canon of interpretation, we find that interpretations of some सूत्र's, as propounded and accepted by commentators, can be proved faulty. The commentators, in these cases, instead of leading us to the most natural and simple interpretations, have gone astray. In such cases, we should reject the interpretations of commentators. (See the interpretation of पाणिनि's सूत्र 'नाउक्षलौ' in my paper referred to above.)

IV

There are some सूत्र's of पाणिनि, which admit of modification in their wording, as has already been suggested by various commentators. For example, the सूत्र 'तस्यादित उदात्तमर्थहस्तम्' (1-2-32) should read 'तस्यादित उदात्तमर्थम्'.^२ In many cases काल्यायन वार्तिककार has suggested additions, substitutions and dropping of words in the सूत्र's of पाणिनि. In such cases, allowing the सूत्र's to remain unchanged would lead to confusion.^३ Therefore, the suggestions made by काल्यायन should be carried out in the body of पाणिनि's सूत्र's.

The same remark applies to the suggested omission of those सूत्र's which are declared as useless (प्रत्यारुपेय) by पतंजलि and other commentators.

V

Now we may refer to a point of importance, which has not been sufficiently emphasized in Pāṇini's work—the relation between the Vedic and

^० See सिद्धान्तकौमुदी on हलन्त्यम् (1-8-8) and नाउक्षलौ (1-1-10).

^१ My paper on "Homogeneity of Letters in the Pāṇinian System—a Critical Study", read in the All-India Oriental Conference, Baroda (1933).

^२ For detail, see तस्वबोधिनी commentary of सिद्धान्तकौमुदी on the सूत्र.

^३ See the सूत्र (2-3-17) and the वार्तिक on it.

the classical Sanskrit. Though पाणिनि's work claims to deal with both these languages by treating the Vedic usages as exceptions to the classical, we are constrained to say that the Vedic section has been treated very haphazardly. It does not cover all the ground of the Vedic usages with the same thoroughness as is seen in the treatment of the classical Sanskrit. There is much scope for enlarging the Vedic section¹⁰ (वैदिकी प्रक्रिया). The long rope allowed to the Vedic forms by such सूत्र's as 'बहुलं छन्दसि' (occurring very frequently in the Vedic section) does not clearly indicate the relation between the Vedic and classical Sanskrit. There should have been a more rational and scientific treatment of the Vedic section.

Our grammar should clearly state that many classical Sanskrit forms are remnants of earlier Vedic forms. The word समानधर्मा (समानो धर्मो यस्य सः) possesses a remnant of the Vedic stem धर्मन् and is not formed by adding अन् in the end of the compound as पाणिनि prescribes.¹¹

VI

The basis of पाणिनि's Grammar is, as Dr. R. G. Bhandarkar says, the usage of Brāhmaṇas and Upanishads rather than of the classical Sanskrit literature. It is due to this reason that many formations accounted for by पाणिनि are not found used in the classical Sanskrit. A thorough indexing of principal works written in the classical Sanskrit will give us an idea as to how many roots and formations accounted for in पाणिनि's अष्टाव्यायी are now rendered obsolete. Needless to say, such roots and formations deserve no place in a grammar of classical Sanskrit.

More than 2,000 years ago, this very pertinent question was raised in पतंजलि's महाभाष्य (I-i-1): "Why should Grammar provide for formations which are no longer used?" The reply given there is more hypothetical than practical. "Though some forms are not found used in the extant literature, yet grammar should make provision for them. Who knows they might have been used in some obscure work found in some corner of the world? Our earth is made up of seven continents, there are three worlds, four Vedas with their auxiliary treatises, works on history, dialogues, traditions and Purāṇas. How can one guarantee that a particular formation is not to be found somewhere in this extensive literature?"

¹⁰ There is no scientific treatment of *governing compounds* in पाणिनि's अष्टाव्यायी, e.g., धारयत्कर्त्ता = कर्त्ति धारयन्ते (helping a sage). Even nomenclature of such a compound is wanting there.

¹¹ By the सूत्र, 'धर्मादनिच्च केवलात्' (5-4-124).

Surely in the present practical age, when there is a cry for economy in all spheres of action, one would not like to overburden a grammatical treatise with rules for forming such words, the very existence of which can be reasonably questioned. In our reshaping पाणिनि's अष्टाध्यायी, such सूत्र's have to be necessarily dropped.

A rewritten version of अष्टाध्यायी—at some places abridged and at other places made more scientifically comprehensive—embodying the results of a comparative study of the Vedic and classical Sanskrit, will be of great help and practical use to the modern students of the Sanskrit language. For, however much we may try to teach Sanskrit Grammar through the modern books (such as Bhandarkar's and Trivedi's), our students cannot be expected to have attained good grounding in and command over the Sanskrit language, unless they are taught Sanskrit Grammar by the Pāṇinian method.

AN INVESTIGATION INTO THE EFFECT OF MANURING AND STAGE OF MATURITY ON THE YIELD AND MINERAL COMPOSITION OF PASTURE GRASS AND THEIR BEARING ON THE MINERAL REQUIREMENTS OF THE CATTLE OF THE CENTRAL PROVINCES.*

By D. V. BAL

AND

C. R. ATHAWALE.

(*Department of Agriculture, Central Provinces and Berar.*)

1. Introduction.

RECENT investigations summarised by Orr (1929) have shown that almost in every country there occur cases of malnutrition in cattle due to lack of calcium or phosphorus. An examination of the results of analysis of grasses from various places also shows that the mineral content of pastures from tropical and sub-tropical areas is, in general, lower than that recorded for pastures in cold temperate regions. In so far as India is concerned Orr (1929) has made the following observation :—

"Cattle in India in general are of poor quality and malnutrition is common. It is difficult, however, to estimate to what extent the malnutrition is due to lack of any particular food constituent, as the conditions appear to be such that the effects of any particular deficiency tend to be overshadowed by the effects of sheer starvation." "In addition to general undernutrition, however, there are evidently in certain areas marked deficiencies of minerals in the herbage."

The cattle of the C. P. and Berar in general cannot be said to be of a particularly good quality. This may either be due to undernutrition or to deficiency of minerals, or other factors. In order to remove the defects due to undernutrition attempts must be made to increase the outturn of grass per acre, but if the defect is due to deficiency of minerals this must be made good either by improving the quality of the herbage or by the direct method of feeding adequate quantities of minerals to the cattle. An investigation was therefore started to ascertain the effect of manuring on the quality and yield of the herbage and to study other cognate problems and this paper records the results of three years, obtained from a detailed study of the following factors :—

* Paper read at the Twenty-second Indian Science Congress, Calcutta, 1935.

- (1) The effect of manuring on the yield and mineral content of grass.
- (2) Variations in the mineral content of grass cut at various stages of growth.
- (3) The effect of frequency of cutting on the yield of grass.
- (4) The mineral content of the herbage and its bearing on the mineral needs of cattle of the C. P.

2. Experimental.

Quadruplicate grass plots according to the Latin square design were laid out in the Telankheri Park in May 1931 and were treated with different types of fertilisers. In one set of 16 plots the grass grown is of the usual local type growing naturally in the park area and in the other set of 16 plots the land was sown with the Economic Botanist's grass mixture containing different types of grasses and legumes. There are thus two types of grasses grown in the experimental plots at Telankheri and these are referred to in this paper as "Local grass" and "Economic Botanist's grass mixture". Manurial treatments employed were as follows :—

- (1) Control unmanured.
- (2) Superphosphate at the rate of 200 lbs. per acre per annum.
- (3) Ammonium sulphate at the rate of 100 lbs. per acre per annum.
- (4) Superphosphate and ammonium sulphate at the rate of 200 lbs. and 100 lbs. respectively per acre per annum.

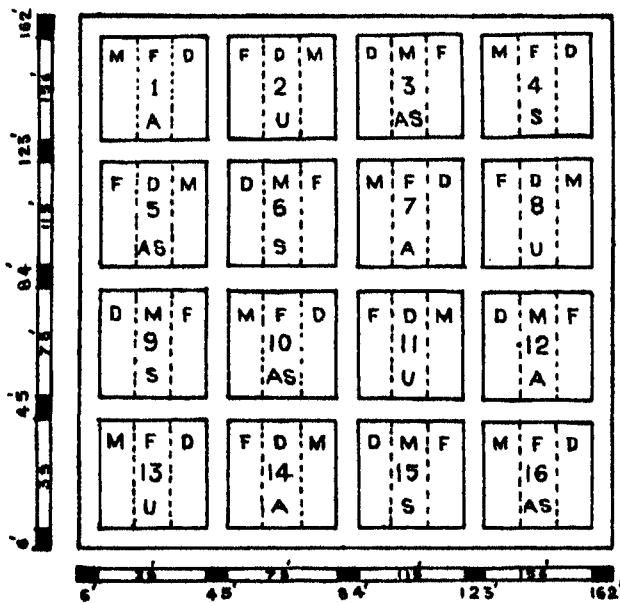
Each plot was divided into 3 parts, the grass from one being cut at monthly intervals, that from the 2nd at the flowering stage and that from the 3rd at the dead ripe stage. As the design of the two sets of plots is exactly alike only a sketch plan of the plots growing the local grass is given in Fig. 1.

Yields of grass from the experimental plots.—Average yields of grass per acre obtained from the experimental plots receiving different manurial treatments and cut at varying stages of growth are given in Table I.

These results show the following :—

- (1) The yield of dry grass per acre from the plots growing Economic Botanist's grass mixture is, irrespective of the various treatments, generally 1½ to 2 times the yield obtained from the corresponding plots growing the local grass.
- (2) The yield of grass per acre from plots cut at monthly intervals is usually less than that obtained from the plots giving a single cut either at the flowering or at the dead ripe stage. Similar results were obtained in Australia by Griffiths Davies and Sim (1931) and by Paterson (1933) at Trinidad with Elephant grass.

FIG. 1
A SKETCH PLAN
SHOWING THE ARRANGEMENT OF THE
PERMANENT GRASS PLOTS LAID OUT AT
THE GOVT DAIRY FARM TELANKHERI
NAGPUR



REFERENCES

A. = MANURED WITH AMMONIUM SULPHATE ONLY

U. = UN MANURED

A.S. = MANURED WITH AMMONIUM SULPHATE + SUPERPHOSPHATE

S. = MANURED WITH SUPERPHOSPHATE ONLY

M. = HERBAGE CUT AT MONTHLY INTERVALS

F. = " " ONCE AT THE FLOWERING STAGE

D. = " " " " DEADRIPE STAGE

Table I showing the yield in lbs. per acre of dry grass from the permanent experimental plots at Telankheri

Treatment	Unmanured			200 lbs. superphosphate per acre			200 lbs. superphosphate + 100 lbs. ammonium sulphate per acre			100 lbs. ammonium sulphate per acre			
	Year	Kind of grass	Monthly cuts	Cut at flowering stage	Monthly cuts	Cut at dead-ripe stage	Monthly cuts	Cut at flowering stage	Monthly cuts	Cut at dead-ripe stage	Monthly cuts	Cat at flowering stage	Cat at dead-ripe stage
1931	Local grass	2626	2406	2275	2691	2275	2522	2889	2903	2315	2918	2943	2252
1932	1442	2308	1910	1806	2953	2645	2720	3060	2397	2580	3180	2671	
1933	2124	1677	2225	2717	2403	2838	3039	3130	3784	3347	2739	3773	
Average of 3 years		2064	2097	2137	2405	2544	2668	2883	2931	2832	2948	2954	2899
1931	Economic Botanist's grass mixture	4362	5009	5145	3716	4197	3490	5084	6677	5737	4786	6032	5962
1932		2149	3216	2981	2272	3214	2396	3223	4690	3485	3066	4505	3706
1933		3182	3741	3659	3531	3067	3522	4759	6321	8561	4235	4279	5285
Average of 3 years		3231	3669	3686	3173	3493	3136	4365	5896	6928	4029	5172	4978

- (3) Except in one or two instances the yield of grass whether cut at the flowering or at the dead ripe stage does not show any appreciable variation.
- (4) The yield of grass obtained from plots receiving a dressing of 100 lbs. ammonium sulphate per acre is about $1\frac{1}{2}$ times that obtained from the unmanured plots in the case of both types of grasses.

Botanical composition of the herbage.—Botanical composition as ascertained by the second Economic Botanist, C. P., showed that in the year 1931 the predominant species of grass in the Local and Economic Botanist's grass mixture areas were *Andropogon pumilus* and *Ischaemum sulcatum* respectively whereas during the year 1933, in the case of the former, *Iseilema laxum* has become the predominant species although there has not been any very appreciable change in the herbage from the latter area. The grass grown on the local grass area is usually rough and stunted in growth and comes to maturity earlier than that from the area reseeded with the Economic Botanist's grass mixture.

Mineral composition of the grasses.—Results of chemical analyses of the various samples of grasses obtained annually from the permanent experimental plots are given in Tables II, III and IV, which show the following :—

- (a) The percentages of calcium (CaO) and phosphoric acid (P_2O_5) in dry grass are usually more in the case of the local grass than those found in the case of the Economic Botanist's grass mixture, but as the latter gives a higher yield per acre than the former, the total quantities of CaO and P_2O_5 removed per acre by the herbage from both the areas do not show any appreciable variation.
- (b) Grass cut at monthly intervals is somewhat richer in P_2O_5 than that cut at the flowering stage and the latter is somewhat richer than that cut at the dead ripe stage, but such a difference in respect of calcium content of the grass is not noticeable to any appreciable extent. Husband and Taylor (1931) also found similar variations in the phosphatic content of the young grass grazed monthly and mature herbage. Results obtained by Paterson (1933) also generally support our observations.
- (c) The mineral content of the grass does not appear to be affected in any way by the various manurial treatments employed. Grunder's (1933) experiments also showed that the increase in the yield of dry matter was found to be a more important result of the fertiliser-treatment than any increase in the percentage of calcium or phosphorus.

Table II showing the average mineral composition of grasses from the manurial experiments conducted at Telankheri during the year 1931-1932.

Treatment	Control				200 lbs. superphosphate only per acre				200 lbs. super + 100 lbs. ammonium sulphate per acre				100 lbs. ammonium sulphate only per acre				
	Kind of grass	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Cut at flowering stage	Cut at dead-ripe stage	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at dead-ripe stage	
Average silica-free ash removed per acre in lbs.	Local grass	130.1	146.0	72.7	154	91.1	94.2	179.07	133.6	96.6	172.74	149.25	78.37				
	E.B.'s grass mixture	158.3	137.4	113.2	165.1	145.8	90.4	237.35	178.65	150.1	194.59	204.7	163.85				
Average silica removed per acre in lbs.	Local grass	268.30	235.35	243.50	266.36	233.90	244.40	268.87	265.70	263.70	269.75	279.00	198.00				
	E.B.'s grass mixture	494.87	533.50	666.50	539.66	505.50	425.70	643.80	658.80	690.30	618.40	746.30	833.70				
Average P ₂ O ₅ removed per acre in lbs.	Local grass	14.0	12.5	11.4	16.3	12.8	12.10	15.65	12.51	10.26	17.55	15.18	9.83				
	E.B.'s grass mixture	14.0	12.7	13.5	13.1	11.4	9.46	17.34	16.16	14.85	14.76	16.27	16.36				

Average % CaO re- moved per acre in lbs.	Local grass	28.2	22.9	19.2	31.5	21.4	21.6	34.05	25.38	27.25	29.91	27.10	18.47
	E.B.'s grass mixture	20.9	21.4	26.6	25.8	27.0	22.03	35.15	30.56	37.33	30.00	31.09	35.36
Average % silica- free ash in dry matter	Local grass	4.85	6.07	3.2	5.7	4.0	3.73	6.197	5.19	4.16	5.920	5.05	3.48
	E.B.'s grass mixture	3.62	2.8	2.2	4.4	3.5	2.60	4.668	2.66	2.61	4.07	3.67	2.71
Average % silica in dry matter	Local grass	10.22	9.78	10.70	9.90	10.28	9.69	9.30	9.82	8.80	9.24	9.48	8.79
	E.B.'s grass mixture	11.34	10.65	12.95	14.52	12.05	12.20	12.66	9.86	12.03	12.92	11.25	14.16
Average % P ₂ O ₅ in dry matter	Local grass	0.53	0.52	0.5	0.61	0.55	0.480	0.542	0.479	0.441	0.601	0.515	0.434
	E.B.'s grass mixture	0.32	0.27	0.26	0.35	0.27	0.267	0.340	0.240	0.261	0.308	0.245	0.274
Average % CaO in dry matter	Local grass	1.07	0.95	0.84	1.17	0.95	0.859	1.18	0.973	1.15	1.025	0.926	0.807
	E.B.'s grass mixture	0.62	0.45	0.52	0.69	0.65	0.627	0.691	0.458	0.647	0.627	0.468	0.582

Table III showing the average mineral composition of grasses from the manurial experiments conducted at Telankheri during the year 1932-1933.

Treatment	Control			200 lbs. superphosphate only per acre			200 lbs. super + 100 lbs. ammonium sulphate per acre			100 lbs. ammonium sulphate only per acre		
	Kind of grass	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at flowering stage
Local grass	84.4	108.9	71.0	132.01	141.8	99.2	177.61	137.3	102.3	175.6	139.9	116.6
Average silica-free ash removed per acre in lbs.	115.3	108.9	108.4	200.2	158.2	88.4	191.7	193.2	177.6	170.5	149.6	123.6
Local grass	152.49	207.2	195.0	162.85	219.2	222.05	263.04	275.6	199.65	241.12	287.7	254.0
Average silica removed per acre in lbs.	231.24	420.4	427.9	264.09	400.6	316.0	305.24	389.7	411.0	323.44	536.2	517.25
Local grass	10.83	13.64	7.71	14.84	20.33	11.21	20.44	18.4	9.89	21.63	19.7	10.72
Average P ₂ O ₅ removed per acre in lbs.	13.23	11.52	9.84	14.86	11.80	7.94	19.33	17.19	12.05	15.00	14.29	11.44

Local grass	14.41	24.64	16.68	27.33	28.61	19.20	20.16	24.60	20.53	21.06	25.24	21.13
Average CaO removed per acre in lbs.	16.69	24.97	20.06	28.44	31.20	18.85	25.67	46.77	24.99	24.02	33.72	23.35
Local grass	5.52	4.935	3.70	7.15	4.80	3.80	5.494	4.488	4.252	6.24	4.416	4.190
Average % silica-free ash in dry matter	4.315	3.37	3.58	6.327	4.95	3.71	5.504	4.090	3.69	5.46	3.48	3.335
Local grass	10.36	9.38	10.29	9.47	7.41	8.43	9.28	9.02	8.26	9.45	8.99	9.51
Average % silica in dry matter	11.35	13.14	13.86	11.85	12.43	13.09	10.39	8.54	11.72	10.66	12.09	13.96
Local grass	0.721	0.618	0.3308	0.789	0.689	0.434	0.725	0.602	0.410	0.804	0.621	0.402
Average % P ₂ O ₅ in dry matter	0.644	0.257	0.319	0.647	0.367	0.325	0.662	0.363	0.348	0.567	0.328	0.309
Local grass	0.930	1.116	0.858	1.493	0.902	0.739	0.789	0.802	0.941	0.826	0.792	0.795
Average % CaO in dry matter	0.883	0.767	0.635	1.191	0.977	0.793	0.856	0.976	0.729	0.876	0.769	0.630

Table IV showing the average mineral composition of grasses from the manurial experiments conducted at Telankheri during the year 1933-34.

Treatment	Control			200 lbs. superphosphate only per acre			200 lbs. super + 100 lbs. ammonium sulphate only per acre			100 lbs. ammonium sulphate only per acre			
	Kind of grass	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at flowering stage	Cut at dead-ripe stage	Monthly cuttings	Cut at dead-ripe stage	
Local grass	120.44	86.94	76.13	188.20	145.13	91.50	153.00	108.81	105.50	193.00	128.63	111.31	
Average silica-free ash removed per acre in lbs.	E.B.'s grass mixture	94.63	113.81	200.06	105.13	116.63	225.25	178.88	235.81	240.30	133.75	147.00	
Local grass	191.20	139.50	250.70	250.40	168.50	278.13	247.94	221.63	340.50	275.81	211.75	401.2	
Average silica removed per acre in lbs.	E.B.'s grass mixture	273.26	283.75	373.13	369.00	213.25	420.64	370.20	423.13	713.70	372.56	319.40	588.70
Average P ₂ O ₅ removed per acre in lbs.	Local grass	12.50	9.31	9.61	17.50	13.81	10.88	18.31	14.88	12.88	21.63	14.31	12.63
	E.R.'s grass mixture	15.44	10.00	11.81	18.20	10.81	11.40	24.00	16.50	28.00	21.00	12.75	18.00

Average CaO re- moved per acre in lbs.	Local grass	18.13	14.56	27.70	29.20	24.81	24.94	22.00	18.88	21.31	25.40	19.81	27.20
E.B.'s grass mixture	Local grass	37.63	19.70	29.81	37.81	29.81	31.81	34.44	32.70	52.56	42.31	30.40	35.81
Average % silica- free ash in dry matter	E.B.'s grass mixture	5.669	5.182	3.420	6.930	6.040	3.224	5.037	3.477	2.788	5.769	4.895	2.950
Average % silica- free ash in dry matter	E.B.'s grass mixture	5.470	2.529	3.189	5.668	3.427	3.312	4.734	2.830	2.755	5.874	3.065	2.792
Average % silica in dry matter	Local grass	9.002	8.320	11.270	9.219	7.014	9.755	8.161	7.081	8.997	8.243	7.729	10.63
E.B.'s grass mixture	8.585	7.583	10.450	10.450	6.962	11.940	7.779	6.692	8.335	8.799	7.295	11.170	
Average % P ₂ O ₅ in dry matter	Local grass	0.588	0.555	0.431	0.644	0.574	0.384	0.603	0.474	0.341	0.646	0.522	0.334
E.B.'s grass mixture	0.484	0.267	0.331	0.5156	0.352	0.324	0.504	0.261	0.327	0.495	0.291	0.342	
Average % CaO in dry matter	Local grass	0.852	0.871	1.245	1.075	1.032	0.877	0.724	0.604	0.563	0.759	0.723	0.721
E.B.'s grass mixture	1.181	0.527	0.835	1.071	0.972	0.903	0.723	0.517	0.614	0.998	0.694	0.680	

Analyses of various samples of grasses from Adhartal farm, Jubbulpore, receiving different manurial treatments and cut at varying stages of maturity, also corroborated the findings recorded under (b) and (c) above. Some typical figures of analyses obtained are given in Table V.

TABLE V.

Showing the mineral composition of grasses from Adhartal Farm, Jubbulpore.

Manurial treatments	Percentages of P_2O_5 and CaO in dry matter: Average for 3 years							
	Grass cut in the 1st fortnight of October		Grass cut in the 2nd fortnight of October		Grass cut in the 1st fortnight of November		Grass cut in the 2nd fortnight of November	
	P_2O_5	CaO	P_2O_5	CaO	P_2O_5	CaO	P_2O_5	CaO
Initial application of 20 mds. bonemeal per acre.	0.390	0.527	0.396	0.526	0.290	0.562	0.261	0.642
Initial application of 30 mds. slaked lime per acre.	0.200	0.535	0.163	0.547	0.193	0.618	0.122	0.635
Initial application of 30 mds. basic slag per acre.	0.438	0.611	0.388	0.623	0.263	0.620	0.279	0.711
Untreated	0.206	0.490	0.158	0.501	0.142	0.571	0.128	0.621

These results show that the phosphoric acid content of the grass has not been appreciably increased by initially manuring the land heavily with phosphatic fertilisers and the calcium (CaO) content has also not been increased as a result of manuring the land with either slaked lime or lime mortar. These figures further show that the early cut grass, e.g., that cut in the first fortnight of October, will yield hay of higher mineral content as compared to that cut late in the 2nd fortnight of November.

Some of the results obtained by Godden and quoted by Orr (1929) show that the addition of phosphatic fertilisers to cultivated soil did not increase the phosphorus content of the pasture, and omission of phosphorus from the fertilisers applied to the soil did not also materially affect the percentage of P_2O_5 in the grass. On very poor soils the application of phosphatic fertilisers resulted in an increased percentage of P_2O_5 in the grass.

Results of chemical analysis show that the soil of our experimental plots contains on an average 0.10 to 0.20 % of total and 0.005 to 0.04 % of available P_2O_5 and cannot be said to be poor in this constituent when compared

to several other soils found in this Province, which show either traces or as low a percentage of total P_2O_5 as 0·01.

Bearing of these results on the mineral needs of cattle of the Province.— According to the figures quoted by Orr (1929), the percentages of P_2O_5 and CaO in dry matter of normal grass and grass producing deficiency diseases, are as follows :—

	Normal grass		Poor grass	
	% CaO	% P_2O_5	% CaO	% P_2O_5
(1)	1·116	0·496	0·693	0·380
(2)	0·88	0·440	0·460	0·150
(3)	0·410	0·560	0·185	0·156
(4)	0·950	0·420	0·279	0·143
(5)	0·650	0·670	0·210	0·290
(6)	1·000	0·930	0·490	0·190
(7)	0·420	0·560	0·440	0·300
(8)	0·410	0·560	0·340	0·240

From the figures given above it would appear that the mineral composition in respect of P_2O_5 and CaO of the local grass from Telankheri is quite satisfactory, but that of the Economic Botanist's grass mixture and of the grass samples from Jubulpore is somewhat disappointing. In correlating the percentage of CaO and P_2O_5 in the grasses with the possibility of occurrence of deficiency diseases we must, however, take into consideration the minimum mineral requirements of cattle in respect of calcium and phosphorus. In this connection some experiments carried out by Theiler (1927) *et al* give the following interesting data :—

- (1) When heifers about 12 to 18 months old and weighing initially about 400 lbs. per animal were given a "Border line mineral ration" containing 15·0 grams CaO and 11·0 grams P_2O_5 per head per day, it was observed that although these quantities of minerals are not sufficient for growth, the actual deficiency disease did not become definite until after calving. One heifer

did fairly well on this quantity of P_2O_5 for 18 months, increasing in weight from 370 lbs. to 920 lbs. and remained in fair condition, although inferior to heifers receiving an "Adequate mineral ration" described below.

- (2) When heifers about 12 to 18 months old and weighing initially 350 to 550 lbs. per head were given a "Moderate or adequate mineral ration" containing 37 grams CaO and 28 grams P_2O_5 per head per day, the animals grew normally and maintained excellent condition right throughout the experiment. The weight of the individual animals at the close of the experiment after 18 months was about 1,200 lbs.

For practical purposes we may therefore assume from the data given above, the following standards in respect of P_2O_5 and CaO, for ordinary working animals of average weight. Average weight of cattle in C. P. is approximately 600 to 900 lbs. per head.

"Border line requirements" in grams per day per head		"Moderate or adequate requirements" in grams per day per head	
CaO	P_2O_5	CaO	P_2O_5
15.0	11.0	37.0	28.0

The net energy required for maintenance by an animal weighing 1,000 lbs. according to Armsby's feeding standard, is 6 therms. Warth (1928) has found that 6 therms of net energy can be obtained from 15 lbs. of dry grass. The quantities of CaO and P_2O_5 supplied by 15 lbs. of grass assuming that it is poor in minerals (0.5 % CaO and 0.25 % P_2O_5), would be 34.0 and 17.0 grams respectively which are much higher than the quantities for "Border line requirements" quoted above. In the case of good grass containing about 0.8 % CaO and 0.5 % P_2O_5 , the maintenance ration of 15 lbs. dry grass would supply 54.36 grams CaO and 33.97 grams P_2O_5 per head per day which are more than the adequate requirements of ordinary cattle. It would thus appear that if the animals could be supplied with the minimum quantity of dry grass, there would be no danger of starvation in respect of CaO and P_2O_5 , at least in the case of the bullocks, and in all probability in the case of cows giving poor quantities of milk. In this connection it must also be mentioned that the working bullocks and cows in milk, generally weigh less than 1,000 lbs. and are occasionally fed by the cultivators with

cotton seed, oil cakes and leguminous fodders containing a higher percentage of CaO and P₂O₅, and the chances of occurrence of deficiency diseases due to lack of minerals would therefore be rare if the required quantity of grass is available per head per day. Aiyer and Kayasth (1931) concluded that the grasses of C. P. are generally poor in phosphoric acid and lime when compared with those in British pastures, and without taking into consideration the minimum requirements of cattle in respect of these minerals they suggested that the problem of supplying sufficient phosphoric acid to the cattle of the Central Provinces required to be solved.

It has, however, been clearly shown above that according to the data of Theiler *et al*, the minimum requirements of cattle in respect of minerals can be usually met with if the required quantity of dry grass is available per head per day. In our opinion, therefore, in order to improve the general condition of the cattle of this Province, steps should firstly be taken to increase the production of grass per acre, so that the cattle would get their minimum energy requirements equal to 15 lbs. of dry grass per head per day. The problem appears to us, therefore, to be primarily one of starvation rather than malnutrition due to lack of minerals in so far as the cattle in general of this Province are concerned, and the question of adequate supply of energy requirements of the cattle is consequently more important than that of mineral composition of the herbage. Grasses of low mineral composition, *i.e.*, those containing 0.5% CaO and 0.25 to 0.3% P₂O₅ if available in adequate quantities, would supply approximately the required minimum mineral needs of the cattle.

It may be mentioned here that in the case of the heavy milch animals, the drain on the body calcium and phosphorus due to the development of the foetus and the production of milk is very severe but in such cases it is usually made good by feeding the cattle with adequate quantities of green fodder and concentrates. Maintenance diet experiments recently conducted at the Telankheri Government Farm, Nagpur, results of which have not yet been published, showed that the animals under the experiment lost in weight for want of adequate quantity of protein and not for want of any calcium or phosphorus. When these cattle were fed with sterilised bone-meal and salt they did not show any improvement in body weight but they put on weight and almost became normal when fed with adequate quantities of protein in the form of concentrates.

In special cases, however, where symptoms of mineral deficiency are visible it will be necessary to give adequate quantities of the mineral to the cattle. For this purpose the ration when required can be supplemented with one ounce of sterilised bonemeal per head per day. The required

quantity of bonemeal, at the suggested rate, would be approximately 23 lbs. per head per annum, the cost of which would be about Rs. 1—5—6 (Rs. 8—8—0 per cwt. F. O. R. Nagpur from the Cawnpore Chemical Works). An ounce of the sterilised bonemeal would give approximately 10 grams of CaO and 7 grams of P_2O_5 .

The importance of occasional application of phosphates to pasture areas with a view to maintaining the soil phosphorus content and promoting the growth of legumes in the herbage, must not, however, be overlooked.

3. Summary.

(1) Results of yields of Local grass and Economic Botanist's grass mixture show the following :—

- (a) The yield of grass per acre from plots cut at monthly intervals is usually less than that obtained from the plots giving a single cut either at the flowering or at the dead ripe stage.
- (b) The yield of grass whether cut at the flowering stage or at the dead ripe stage does not show any appreciable variation.
- (c) A dressing of 100 lbs. ammonium sulphate per acre increases the yield of grass by about 50 %.

(2) The percentages of calcium (CaO) and phosphoric acid (P_2O_5) in dry grass are usually more in the case of the Local grass than those found in the case of the Economic Botanist's grass mixture, but as the latter gives a higher yield per acre than the former, the total quantities of these ingredients removed per acre by the herbage from both the areas do not show any appreciable variation.

(3) Grass cut at monthly intervals is somewhat richer in P_2O_5 than that cut at the flowering stage and the latter is somewhat richer than that cut at the dead ripe stage, but such a difference in respect of calcium content of the grass is not noticeable to any appreciable extent.

(4) The mineral content of the grass does not appear to be affected in any way by the various manurial treatments employed.

(5) From the data given by Theiler in respect of minimum and adequate mineral requirements of cattle of average weight and that given in the paper in respect of the percentage composition of the ordinary grass, it is considered that ordinarily if the animals can be supplied with the minimum quantity of dry grass required for their maintenance, there would be no danger of deficiency in respect of calcium and phosphoric acid.

(6) The problem, therefore, in so far as this Province is concerned, appears to be primarily one of starvation rather than malnutrition due to lack of minerals.

(7) With a view to increasing the yield of grass per acre, the question of manuring the grass lands with adequate quantities of ammonium sulphate deserves careful consideration.

(8) In special cases where calcium or phosphoric acid deficiency is likely to occur the cheapest method by which this can be avoided would be to feed the cattle with one ounce of sterilised bonemeal per head per day.

REFERENCES.

1. Aiyer, A. R. P., and Kayasth, R. N., *Agri. and Live Stock in India*, 1931, 1, 526.
2. Griffiths, Davies and Sim, *Herbage Abstracts*, 1931, 1, 14.
3. Grunder, M. S., *Jour. Agri. Res.*, 1931, **46**, 375.
4. Husband and Taylor, *Herbage Abstracts*, 1931, 1, 15.
5. Orr, J. B., *Mineral in Pastures*, H. K. Lewis & Co., London, 1929.
6. Paterson, D. D., *Jour. Agri. Science*, 1933, **23**, 615.
7. Theiler, A. et al., *Jour. Agri. Science*, 1927, **27**, 291.
8. Warth, F. J., *Mem. Dept. Agri. Ind. Chem. Ser.*, 1928, **9**, 37.

INTERIM REPORT

on an Excavation conducted by Dr. G. R. Hunter, by permission of Government, in a rock-shelter, hereinafter called Dorothy Deep Rock-Shelter No. 1, situated in the valley known as Dorothy Deep, about 2 miles W.N.W. of Pachmarhi in the Mahadeo Hills, Central Provinces, India.

Situation.

FROM Pachmarhi the Shelter is approached by motor car to a point about 3 furlongs from the metalled road. Progress is then made on foot along the track leading to Dorothy Deep, for about 4 furlongs. Here, at an unmarked point, the track must be quitted, and a course laid due North across thick jungle until one emerges on the steep southern scarp (looking North) of a wide valley. This scarp is then negotiated for a distance of about 150 yards at an angle of about 45 degrees. But although thus somewhat difficult of approach from above, the Shelter is easily reached from the valley below, and would constitute a convenient and accessible home for hunters and trappers operating in the wide and well-stocked valley of Jambudwip which spreads itself for a mile in front and several miles East and West—right and left—of the cave. The average level of the terrace or plateau of this valley is about 100 feet below the Shelter, while the intersecting gorges descend a further 200 feet. The Shelter constitutes a cavity in the sandstone cliff, some 20 feet in height.

The floor of the Shelter is some 70 feet at its greatest length, West to East, and some 30 feet at its greatest width, North to South, in the region that I called the 'nullah section' in my 1933 report,* which extends along the meridian 30° of the contour sketch accompanying this report, from parallel L southwards.

Of this floor a portion, 36 feet long and from 11' to 20' wide, was covered with soil and rock debris, varying in depth from 2 inches along meridian 0 by progressive increase to over 50" along line 18, and probably to greater depths in the higher and as yet unexcavated meridians. This corresponds with the fact that whereas the rock-bed of the Shelter appears to be almost level, the floor surface, before excavation, showed a slope of about 1 in 20 towards the North and 1 in 5 towards the West. This inclination of the surface moreover, corresponds with the folding of the rock. The Shelter seems to have been formed by pressure causing a local fault in

* Unpublished.

the rock, a diamond-shaped cavity overhung by separated strata of rock, slabs of which have from time to time detached themselves and slid forward on to the floor of the cave. Sometimes these slipping slabs have disintegrated on falling into small chunks of sandstone interspersed with minute quartz pebbles. Other slabs have remained substantially intact, their level undersides parallel to the level face of the bed-rock, and with a layer of soil imprisoned between them. Steps in the process can be clearly seen in photo No. 1, Plate I.

Excavation.

The previous excavation undertaken at Christmas 1932 had been confined to the nullah area and a trial pit close to the rock-wall. In both of these areas bed-rock had been reached at about 2 feet. I determined therefore to commence my Diwali 1934 excavation by a trial trench right across the breadth of the cave from the limit of the northern extension of the surface soil on P to the wall of the Shelter on K. This trench revealed a depth of soil to as much as 5 feet at D x 21. The soil, moreover, was compact and stratified, with signs of only local disturbance here and there by white ants. This comparatively undisturbed stratification, which I had failed to discover in my earlier excavations in Jambudwip Shelter No. 1 during the hot weather of 1933, was important, as it would enable us to determine the chronological sequence of the objects discovered. This was on October 24th. Meanwhile I had on October 23rd selected my datum level and made a contour plan of the surface soil as well as I could with the assistance of 3 coolies, one spirit level and tape-measure marked in inches lent by the P. W. D., a ball of string, and a measured rod, marked in centimetres, lent me by the Royal Anthropological Institute, London, for quite other purposes! The P. W. D. had declined my request for the loan of an overseer, so I had to do as best I could. The accompanying plans (Appendix V) are, therefore, probably full of minor inaccuracies, but are, I hope, sufficiently reliable for our purposes. I had arrived in Pachmarhi on the night of Saturday, October 20th. The 21st was Sunday; and Monday the 22nd was spent in mobilising my staff. I was able to get Babulal, one of the men I had trained in 1933; but the two other recruits were new men, and, owing to the unsettling influences of Diwali, not always the same men! Work was started on the 23rd, Tuesday, and continued daily to the 11th November inclusive, except for two Sundays—19 days in all. The Shelter was usually reached about 10 A.M., and excavation made from then to about 4 P.M. daily.

On October 25th, having completed the digging of the trench to bed-rock, I had to decide where to start my systematic exploration. It was clear that with this depth of soil and extent of area it would not be possible

to excavate the whole matrix in the 19 days at my disposal. Every cubic inch of soil had before removal to be carefully negotiated, to avoid, as far as possible, damaging any bone, pottery, or other fragile relics it might contain; and, after removal, had to be passed through a fine meshed sieve to be sure that no minute objects—such as the tiny beads found in the 1932 and 1933 excavations—be overlooked and lost. I could, of course, have employed more men, but only at the expense of effective supervision, as I had learnt in my earlier explorations. I chose accordingly to start work on the area that lay west of my trench, area A to I by 19 to 0, as this was likely to prove shallower in depth, and therefore of *less* importance. I consider it always best to start on the less important areas in order that the experience then gained, of the nature of the soil, state of preservation of bones, and, consequent thereon, the best methods of attacking the problem of their successful excavation, may be available for work on the areas of greater importance. I started therefore on the excavation of this area, dividing it up into such sections and levels as the evidence of the strata successively uncovered suggested as convenient. These sectional areas are listed in Appendix I, and contents of the more important classified in Appendix II. The numbering is taken from their serial numbering in my field notes, and is therefore not completely consecutive (particular objects found within the areas having also received serial numbers in my field notes). My field notes are herewith reproduced—Appendix IX—since they record the impressions of the moment, which, even when subsequently shown to be misconceived, are not without interest to students of the material excavated. In these notes 'giti' means small quartzite and sandstone pebbles.

Conclusions.

My conclusions on points of detail are given in Appendix III (Analysis of Bone, Pottery and Quartzite implements). These and my general conclusions are of course subject to what new knowledge may be obtained from the excavation of the remaining—and, as I surmise, more important—portion of the Shelter's floor-deposits. With this reservation my general conclusions—taking into account the experience of my 1932 and 1933 excavations—are as follows:—

1. Dorothy Deep No. 1 (Like Jambudwip No. 1 and 2 and Monte Rosa) has been inhabited by men who for some purpose or purposes used flint implements of a distinctive character that has been found widely in other parts of the world, and is classed by us as Mesolithic in the sequence of prehistoric cultures, and labelled Tardenoisian, after one of its characteristic sites, the village of Tardenois, in France.

2. While the exact purpose of these implements is unknown, it *may* have been to barb arrows or harpoons.

3. The multiplicity of shapes and sizes of implements, characteristic of most stone-using folk, is notably absent, and suggests that our men depended upon another material, or materials, for many purposes. But all trace of metal or polished stone in association with the quartz implements and flakes being absent, one is forced to conclude that in Pachmarhi, as in Europe, these people lived before the metal age, and even the Neolithic age. Doubtless the material on which they depended for ordinary purposes was wood.

4. At a later stage the Shelter was inhabited by men using pottery. Though I have not yet found any sterile layer separating the two cultures, and though a few quartz flakes have been found in the upper layers where pottery abounds, and a few pottery fragments at a depth of 9 inches where flakes abound, yet I doubt whether there was any overlap in time between the two cultures, the depth of overlap in space being so limited—2 or 3 inches at the most—as to suggest nothing more than the inevitable disturbance of the surface soil to a depth of 2 or 3 inches by the first pottery users. Even if several thousand years separated the two cultures one would not expect to find any depth of soil separating them, since in the nature of the local circumstances, soil can only accumulate here whilst the Shelter is in occupation with consequential erosion and pulverisation of the fragments of fallen sandstone by perpetual contact with human feet, hands and implements. During an uninhabited period the soil on the floor is as likely to diminish as to accumulate, such accretion as may be deposited by occasional rock-falls being offset by wind erosion.

5. Whereas the skeletons found in Jambudwip No. 1, though found in soil impregnated with quartz flakes and implements, *may* have represented interments of a later age, pottery fragments being found in their vicinity, the skeleton found in Dorothy Deep No. 1 admits of no such interpretation. It was found in association with the typical Tardenoisian flakes and implements, but without a vestige of pottery, which indeed was entirely absent not merely at the level of the skeleton, 18"-21", but for a further 10" above it. The surface soil down to 6" was however strewn with pottery—about 100 fragments in the area E $\frac{1}{2}$ to F $\frac{1}{2}$ \times 16 $\frac{1}{2}$ to 12 $\frac{1}{2}$, the very area in which, a foot deeper, the skeleton was found. Now if this interment was of the pottery-using period and the soil excavated to a depth of 2 feet for the purpose, how comes it that in filling in the excavation after burial none of the excavated earth was thrown in, or, if thrown in, only after weeding out every piece of the 100 fragments of pottery? This question has only to be

asked to make it evident that the interment in question is a pre-pottery-using mesolithic interment. It is probable that some at least of the interments in Jambudwip No. 1 were also Tardenoisian, as I suggested in my earlier reports:—probable but not certain; whereas in the case of this Dorothy Deep No. 1 skeleton it is *certain*. It is to be added that so far no beads or other objects have been found in association with it. It is unfortunate that the cranium, except for two very small pieces, had been entirely devoured by white ants.

6. While several minor varieties are discernible among the quartz implements, the number found in this Diwali excavation is insufficient to attempt to establish a chronological sequence. But it is not unlikely that the exploration of the remainder of the floor, P to M \times 36 to 21 may make this feasible. The matter is of some importance as will be gathered from the attached extract from a letter sent me by Professor Henry Balfour, F.R.S., Curator of the Pitt Rivers Museum, Oxford.

7. So far no evidence has been found of the presence of pre-mesolithic man in these shelters. However, only a very small area, A-D \times 19-16 has so far been excavated to a depth exceeding 3 feet.

8. The principal points remaining to be settled are therefore

(a) The race of the Tardenoisian inhabitants.

(b) The correct sequence of the different variety of 'barbs'—equilateral, isosceles, scalene, crescentic.

(c) The existence of any earlier palæolithic cultures.

(c) will be definitely decided, (b) probably and (a) possibly. (*Viz.*, if we find another skeleton with cranium intact. For importance of this, see attached letter from Oxford University Committee for Anthropology, Appendix VIII) when the remainder of the floor is excavated. This I propose to undertake, with Government's permission, after the termination of the courses of lectures I am giving in Morris College on Saturday, 2nd March 1935.*

APPENDIX I.

List of Sectional Areas excavated.¹

- No. 1. Trial Trench from surface to bed-rock, and from P to J by 19 to 21.
2. B-D2 \times 19-7, From surface to 6" below surface.
3. A-B \times 19-15, From surface to 6".
6. B-D2 \times 19-7, From 6" to 10".

* Accomplished. Report may be expected next year.

¹ The letters and numbers are to the plans. See Appendix V.

7. D2-E3 \times 19-12, From surface to 6".
8. D2-G \times 12-6, From surface to 4".
9. G to Rockwall \times 12-6, From surface to 8".
10. E3 to I \times 19-12—Xmas Excavation surface accumulations 6"-18".
11. D2-E3 \times 19-12, From 6"-10".
12. D2-G \times 12-6, From 4"-10".
13. A-B \times 15-9, Surface to 6".
14. A-G \times 19-14. From previous levels to a maximum depth of 18".
18. A-D \times 19-14. From previous levels to a maximum depth of 24".
19. A-D \times 14-8. From previous levels to a maximum of 18".
20. A-D \times 8-0. From surface to maximum depth of 8".
21. D to Rockwall \times 8-0. From surface to 1".
22. " " 1" to 2".
23. " " 2" to 3".
24. D to Rockwall \times 6-0. From 3" to 5".
25. D to Rockwall \times 6-0. From 5" to 8".
26. A-G \times 2½-0. 8" to bed-rock which is at from 6" to 16".
27. A-G \times 3½-2½. 8" to 13".
28. A-G \times 3½-2½. 13" to bed-rock, which is at from 16" to 21".
29. H-I \times 3½-0. From under rockshelf.
30. A-G \times 6½-3½. 8" to maximum depth of 14".
31. A-G \times 6½-3½. From 10'14" to bed-rock which is at 21" to 24".
- 32 to 35. A-G \times 9-6½. Removal of fallen rocks.
36. D-F \times 19-9. From previous levels to maximum depth of 20".
37. D-F \times 19-9. From above level to maximum of 26".
39. F-I \times 19-12. Xmas excavation to maximum depth of 24".
41. B-D \times 19-9. From previous levels to maximum depth of 31".
42. B-D \times 19-9. From above level to bed-rock, which is at from 17" to 51".
45. A-B \times 19-9. From previous levels (varying from 6" on A to 22" on B) to a maximum depth of 28" on B.
47. A-B \times 14-9. From above level to bed-rock which is at from 12" to 34".
48. A-B \times 19-14. From previous level to bed-rock, which is at from 34"-51".

APPENDIX II.

Classified record of Bone, Pottery, Quartz Flakes, Quartz Implements, found in given areas at different levels.

A. Pottery.

- Sectional Area 21. 1 tin-full at surface-1".
 22. (Part of 21) 2 tin-full at 1"-2".
 23. (Part of 22) 1 tin-full at 2"-3".
 24. ($\frac{3}{4}$ of 22) $\frac{1}{2}$ tin-full at 3"-5".
 25. ($\frac{3}{4}$ of 24) 1/24 tin-full at 5"-8" (i.e. 4 very small fragments).
 20. 1 tin-full at surface to 8".
 26, 27, 30. (Twice area 20) $\frac{1}{4}$ tin at 8"-16".
 28 & 31. (Same size as, and partly underneath 20) Nil at 13"-19" (bed-rock).

N.B.—In this area A—Rockshelf by 0-8, no find of pottery definitely assignable to below 9" from surface. Bed-rock in the area is from 3"-19".

B. Flakes in Same Areas.

- | | |
|-------------------------------|--|
| Sectional Area 21. Flakes 4 | 20. Flakes $\frac{1}{3}$ tin. ² |
| 22. , 21 | 26, 27, 30. Flakes 1 tin. |
| 23. , 14 | 28, 31. Flakes $\frac{1}{2}$ tin. |
| 24. , 135. $\frac{1}{2}$ tin. | |
| 25. , $\frac{1}{2}$ tin. | |

N.B.—Very few flakes above 3". Below this about evenly distributed to within an inch or two of bed-rock.

C. Bone in Same Areas.

- Sectional Area 21. *a* & *b*. $\frac{1}{2}$ of a glass.³
 22. *a* & *b*. $\frac{1}{2}$ of a glass.
 23. *a* & *b*. $\frac{1}{2}$ of a glass.
 23. *c*. 1 small fragment.
 24. *a* & *b*. 1½ glasses of small pieces and 3 large fragments.
 24. *c*. 1 small fragment.
 25. *a* & *b*. $\frac{1}{2}$ glass.
 25. *c*. 10 small fragments.
 20. *a* & *b*. 2 glasses.
 20. *c*. $\frac{1}{2}$ glass.

² Probably from first 2 inches. Tin is ordinary cylindrical 50-cigarette tin.

³ glass = liqueur glass; content 2 tablespoonfuls.

a = Showing normal disintegration.

b = fossilized.

c = completely calcified.

26, 27, 30. *a & b.* 2 glasses.

26, 27, 30. *c.* 2 glasses, nearly all from 26 N.B.

28, 31. *a & b.* 6 fragments (all from 31).

28, 31. *c.* $\frac{1}{3}$ glass. (28 has *c.* only).

29A. *c.* $\frac{1}{3}$ glass (*i.e.*, all except 3 fragments and probably all from bed-rock).

D. Quartz Implements in Same Areas. (Size in cm.)

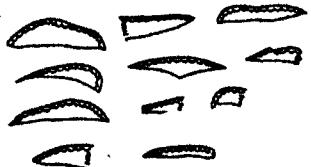
Sectional Area 21. Surface-1"	Nil.	
22. 1"-2"	1 trapeze.	
23. 2"-3"	Nil.	
24. 3"-5"	1 borer ?	
	1 scalene.	
25. 5"-8"	2 crescents. 1.6 x .3 ; 2.1 x .7. 1 H*	
20. Surface-8"	1 H. 2.6 x .8.	
26. 6"/8" to bedrock (16")	1 H. fragment 1.9 x .5. 1 fragment.	
	1 scalene ? 2.2 x .65.	
	1 cresc.-scalene. 1.4 x .4.	
	3 cresc. 2 x 1 ; 1.4 x .45 ; 1.2 x .3.	
27. 8"/13" b.s.* to 3"/8" above bed-rock	1 fragment.	
	1 cresc.-scalene.	
	1.3 x .45.	
30. 8"/4" b.s. to 6"/8" a.b.	1 scalene. 2.35 x .5.	
28. From 8" a.b.* to bed-rock	1 H. 2.6 x .5.	
31. From 6" a.b. to bed-rock	1 H. 2.1 x .5.	
	Nil ?	

* H = worked on longest side only;

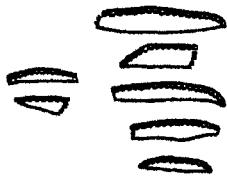
b.s. = below surface;

a.b. = above bedrock.

	Bone	Pottery	Flakes	Implement ^s
Area 7 14 Sq. ft. S.—6"	Nil	$\frac{1}{2}$ tin	5	Nil

Area 11 <i>Idem</i> 6"—10"	Nil	6 fragments	11	
Area 36 <i>Idem &</i> 6 Sq. ft. 10"—20"	a & b a dozen very small fragments c 2 fragments	4 fragments	$\frac{3}{8}$ tin	
Area 37 Same as 36 20"—26"	a & b 1 glass c 2 fragments	1 fragment	1 tin	

Area 40 18"—21"				
--------------------	--	--	--	--

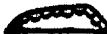
Area 8 S.—4"	1 glassful	$\frac{3}{8}$ tin	$\frac{1}{8}$ tin	
-----------------	------------	-------------------	-------------------	---

Area 12 <i>Idem</i> 4"—10"	1 small fragment	1 very small fragment	$\frac{1}{8}$ tin	
----------------------------------	------------------	--------------------------	-------------------	--

Area 2 B-D \times 9—19 S.—6"	a & b 3½ glasses	1½ tin	$\frac{1}{8}$ tin	Nil
--------------------------------------	---------------------	--------	-------------------	-----

Area 6 B-D2 \times 7—19 6"—10"	a & b 1½ glasses & 2 large fragments b-c. 4 fragments	1 tin	$\frac{1}{8}$ tin	Nil
--	--	-------	-------------------	-----

⁶ The diagrams given here and on p. 37 represent half the original size of the implements.

	Bone	Pottery	Flakes	Implements ⁶
Area 14, 19 B-D × 8—19 at 10"—18" & A-B × 8—19 at 6"—18"	a & b 2½ glasses & 3 large fragments	1½ tin fragments	½ tin	
Area 41 B-D × 9—19 9"—31"	a, b ½ glass c ½ glass	5 small fragments	¾ tin	
Area 42 B-D × 9—19 to bed-rock	a-b. Nil c. 1 medium- sized fragment	Nil	¼ of tin	

APPENDIX III.

Analysis of Classified Record.

Analysis of Quartzite Implements.—Area 0—8 by A to 1 (rockshelf). Bed-rock at from 6" to 20". Very few flakes in first 3". Below this to 8" fairly common, but most abundant in the lower half of the soil.

Similarly in area D-F × 9—19, where bed-rock is in places as much as 44" below surface (if not more), it is the lower half, from 20" downward that seems likely to be best represented; while from 10"—20" also flakes are abundant; whereas for first 10" they are rare.

The same distribution is observed in the area A—D × 9—19; except that below 31" flakes again become rare. It is significant that though flakes have been found on bed-rock itself, this has been in cases so far only when bed-rock was not more than 40" below surface, the lowest find of this nature occurring at B½—D × 14—15½ at a depth of 39". Whereas section A—D × 15—19 which was excavated below this level to bed-rock at over 50", was absolutely sterile in this lowest level.

The find of worked or partly worked implements, whole or fragmentary, is roughly proportionate to the find of flakes, a phenomenon already noted in my earlier excavations, suggesting that throughout the period of this flint culture the Shelter was used as a factory. This is what one would expect. For the quartz pebbles being found abundantly in the immediate neighbourhood, what more natural than that the men should have chipped them at home in the shade and shelter of the cave in their leisure hours, rather than outside exposed to sun and rain?

On the material at present available it is not possible to establish a definite time sequence of the shapes of the implements. But it is not improbable that the completed excavation will furnish sufficient examples to permit this.

Analysis of Bone.

Bone is found throughout the levels ; getting rarer as we go deeper. This is probably due simply to disintegration, pulverization and disappearance.

It is to be noted that as we approach bed-rock what bone there is found in a more and more calcified condition. On bed-rock itself only calcified fragments have been found.

The skeleton found at E $\frac{1}{2}$ -F $\frac{1}{2}$ × 12 $\frac{1}{2}$ -16 $\frac{1}{2}$ was in a state of advanced disintegration. It was with the greatest difficulty that the bones were uncovered without completely pulverizing them in the attempt. They were then coated with candle-grease, heated to near flash-point, and removed after congealation. Disintegration in the case of this skeleton had proceeded rather further, I think, than in the case of those submitted to Dr. Buxton in 1933. The body lay from East to West, head to East, slightly higher than feet, to West, following the same plane as the surface soil. The body was on its back, fully extended, arms to sides ; undoubtedly a deliberate interment. No pottery, beads, or ornaments. Flakes in abundance, and finished implements in the usual proportion.

Analysis of Pottery.

In first eight feet of cave from lower (Western) end, i.e., area 0-8 × A-1, where bed-rock is nowhere more than 21 inches from the surface, no find of pottery below 9" from surface, and very little below 5".

In the next ten or eleven feet up to the line of the Trial Trench, i.e., in area 8-19 by A-1, where bed-rock extends to a depth of at least 50" below surface, pottery is found down to 20" in one place (one small fragment only), but is rare below 10".

It is to be noted that in area where skeleton was found, i.e., E $\frac{1}{2}$ -F $\frac{1}{2}$ × 12 $\frac{1}{2}$ -16 $\frac{1}{2}$, partially below the excavation of Xmas 1932, no pottery was found in the soil above and surrounding the skeleton, while in the upper soil excavated in Xmas 1932, it was noted at the time that pottery was found abundantly down to 6", but only 3 or 4 fragiments below 6".

It is desirable that the pottery be submitted to experts in Europe for classification.

APPENDIX IV.

Key to Plans I and II.

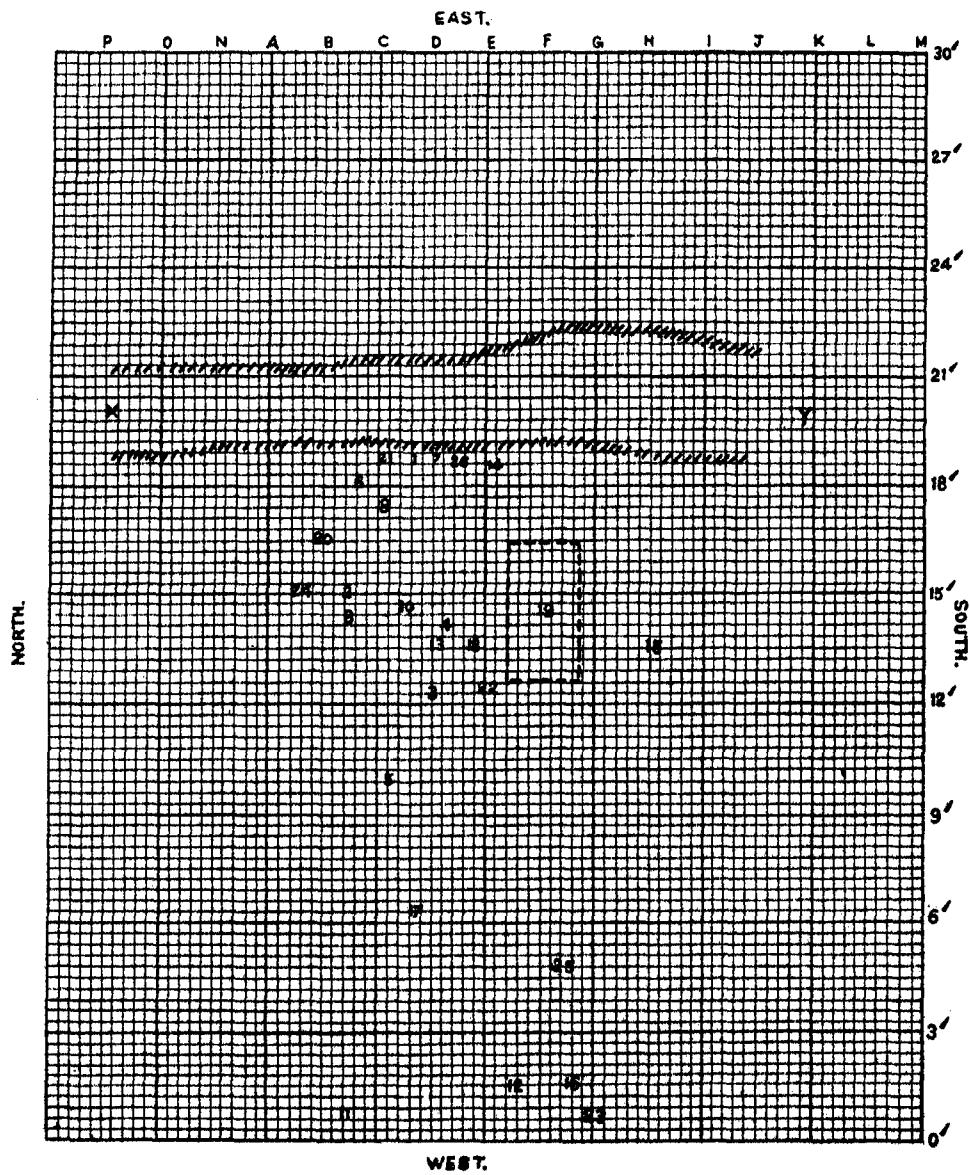
No.					Catalogue number.*
1. Hearth ..	..	..	..	..	5. ii-vii.
2. Piece of Pottery ..	..	..	..	..	4. i.
3. Piece of Bone ..	..	..	..	..	5. i.
4. Soil sample ..	..	..	..	..	6. xii.
5. Tooth ..	..	..	..	..	6. xi.
6. Hearth					
7. Soil sample ..	..	..	..	..	14. v.
8. Hearth, and jaw ..	..	..	..	..	14. iv.
9. Bone in hearth ..	..	..	..	..	14. vii-ix.
10. Hearth					
11. Bones ..	..	..	..	..	20. viii.
12. Ashes					
13. Soil sample ..	..	..	..	..	36. v.
14. Soil sample ..	..	..	..	..	37. vi.
15. Tooth ..	..	..	..	..	10. viii.
16. Hearth					
17. Hearth					
18. Teeth ..	..	..	..	..	38. i.
19. Human skeleton ..	..	..	..	..	40. ii.
20. Bone ..	..	..	..	..	46. i.
21. Soil sample ..	..	..	..	..	1. viii.
22. Rock sample ..	..	..	..	..	36. vi.
23. Wood sample					
24. Piece of iron ..	..	..	..	..	14. vi.
25. Bone ..	..	..	..	..	25. viii.
26. Bone and shell ..	..	..	..	..	6. ix, x.

* See Appendix VI.

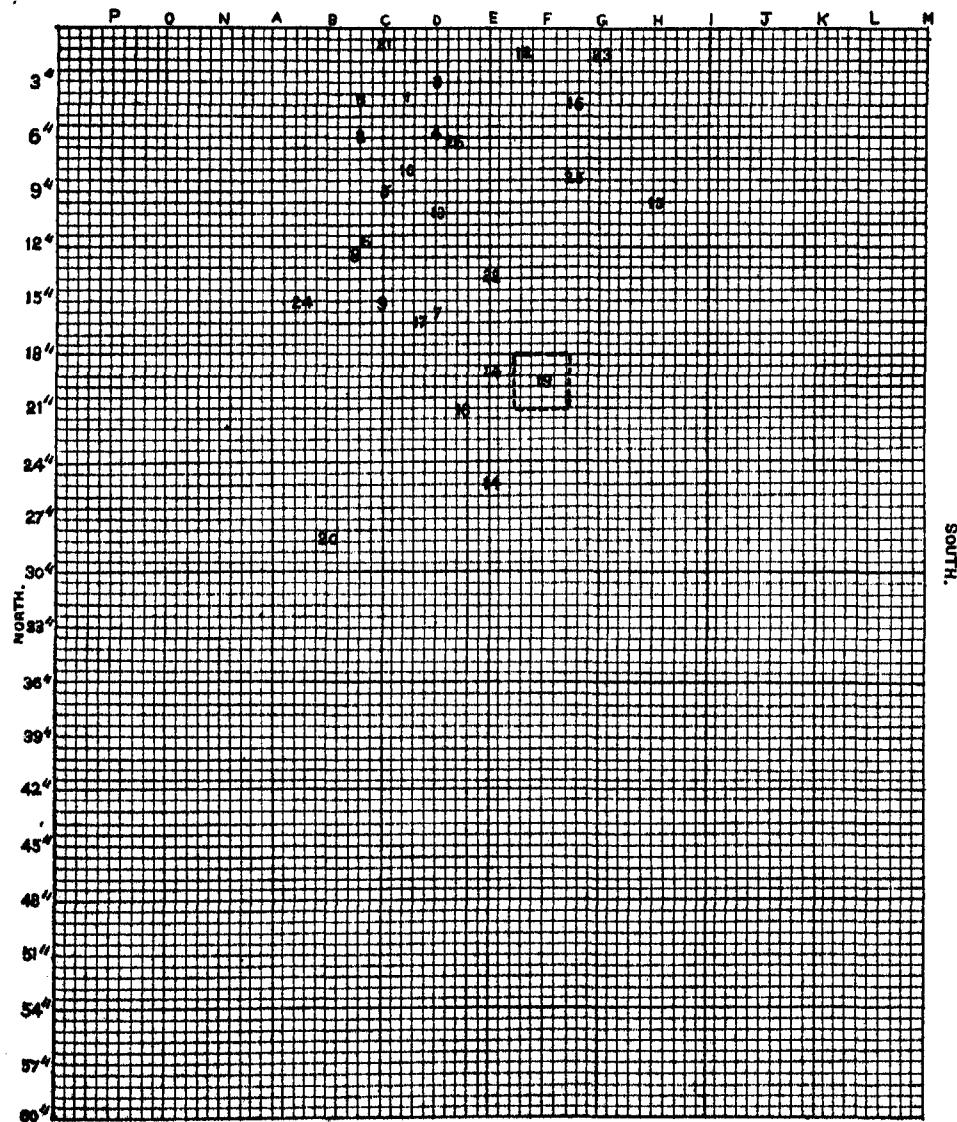
APPENDIX V.

Plans.

I. Horizontal Section.

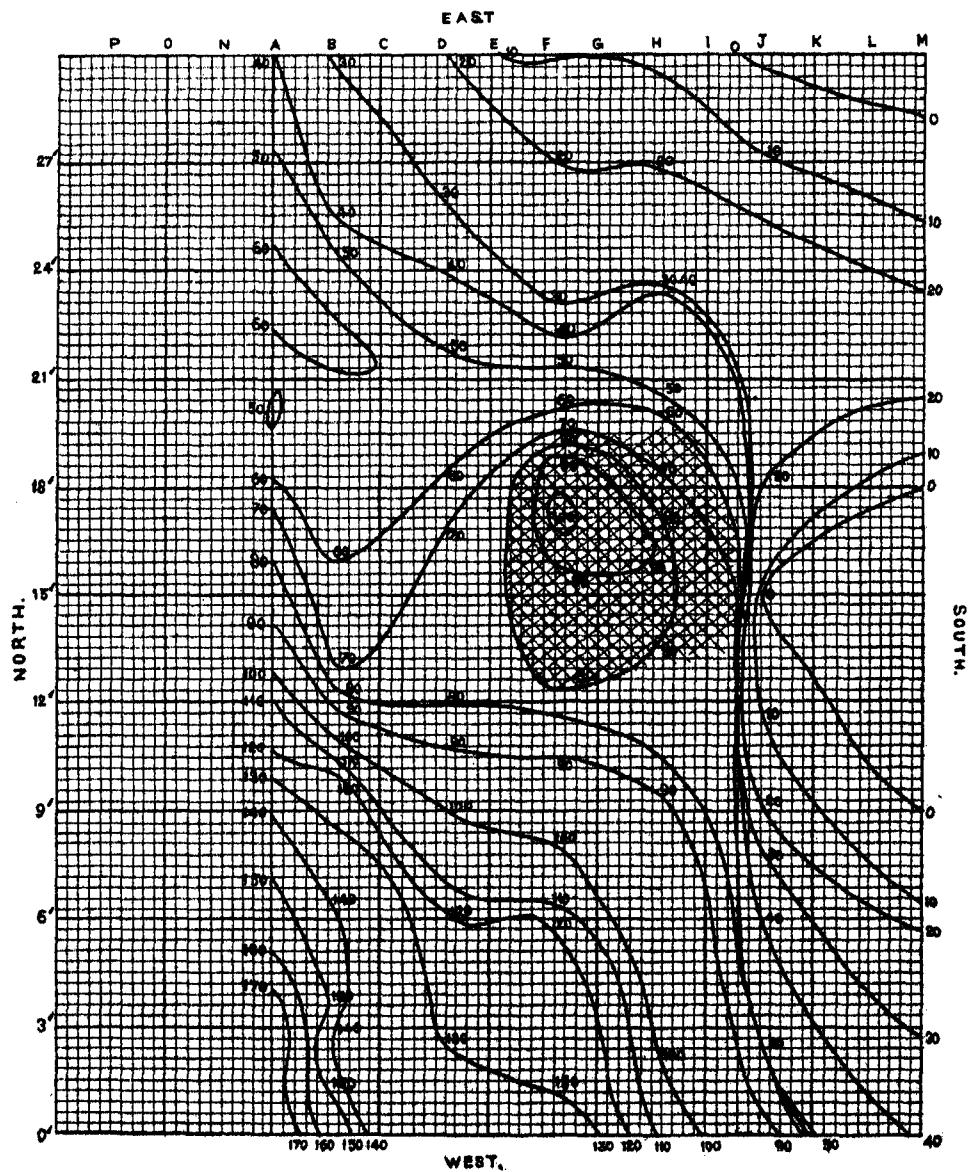


II. Vertical Section.



III. Surface contour before excavation.

Shading = Site of Xmas 1932 excavation. Contours are in cm. below datum.



APPENDIX VI.

*Catalogue of Objects excavated in Dorothy Deep Rock-Shelter No. 1,
during Diwali Vacation, 1934.*

No.

1.	i.	Pottery	..	..	From Trench P-L \times 21-19.
	ii.	Flakes	..	..	" "
	iii.	Bone	..	..	" "
	iv.	Soil samples	..	..	" "
	v.	Crab	..	..	" "
	vi.	Charcoal	..	..	" "
	vii.	Quartz implements	..	..	" "
	viii.	Soil sample	..	..	" "
2.	i.	Pottery	..	..	" West of Trench ", i.e., A-B \times 15-19; B-D \times 9-19. Surface to 6".
	ii.	Flakes	..	..	" " "
	iii.	Charcoal	..	..	" " "
	iv.	Bone	..	..	" " "
	v.	Glass	..	..	" " "
	vi.	Rock samples	..	..	" " "
	vii.	Ivory	..	..	" " "
	viii.	Shell	..	..	" " "
	ix.	Quartz implement	..	..	" " "
4.	i.	Pottery	..	..	B-C \times 15 at 6".
5.	i.	Bone	..	..	D \times 12½ at 3".
	ii.	Charcoal	..	..	C-D \times 19-20 at 4".
	iii.	Bone	..	..	"
	iv.	Flakes	..	..	"
	v.	Pottery	..	..	"
	vi.	Pigment ?	..	..	"
	vii.	Shell of crab (& bones of rhodent ?)	..	..	"
6.	i.	Pottery	..	..	B-D2 \times 19-7 at 6"-10".
	ii.	Flakes	..	..	" "
	iii.	Bone	..	..	" "
	iv.	Glass	..	..	" "
	v.	Ivory	..	..	" "
	vi.	Charcoal	..	..	" "
	vii.	Shell	..	..	" "
	viii.	Pigment ?	..	..	" "

? Venue not certain.

No.

ix.	Shell	..	..	D1	\times	19 at 6".
x.	Bone	..	..	"	"	"
xi.	Ivory	..	..	C	\times	11 at 9".
xii.	Soil	..	..	D	\times	14 at 6".
7. i.	Flakes	..	..	D1-E3	\times	19-12 at surface to 6".
ii.	Pottery	..	..	"	"	"
iii.	Shell	..	..	"	"	"
iv.	Charcoal	..	..	"	"	"
8. i.	Flakes	..	..	D2-G	\times	13-6. Surface to 4".
ii.	Pottery	..	..	"	"	"
iii.	Bone	..	..	"	"	"
iv.	Charcoal	..	..	"	"	"
v.	Glass	..	..	"	"	"
vi.	Quartz implements	..	..	"	"	"
vii.	Shell and rhodont bones			"	"	"	
viii.	Pigment (?)	..	..	"	"	"
ix.	Ivory	..	..	"	"	"
9. i.	Pottery	..	..	G-Rock	\times	12-6. Surface to 8".
ii.	Flakes*	..	..	"	"	"
iii.	Flakes*	..	..	"	"	"
iv.	Quartz implements*	..	..	"	"	"
v.	Quartz implements*	..	..	"	"	"
vi.	Bone	..	..	"	"	"
vii.	Stone, neolithic ?	..	..	"	"	"
viii.	Charcoal	..	..	"	"	"
ix.	Metal (iron)	..	..	"	"	"
x.	Shell	..	..	"	"	"
xi.	Pigment ?	..	..	"	"	"
10. i.	Flakes	Surface of Xmas excavation.			
ii.	Bones	..	..	"	"	"
iii.	Pottery	..	..	"	"	"
iv.	Charcoal	..	..	"	"	"
v.	Rock samples	..	..	"	"	"
vi.	Shell	..	..	"	"	"
vii.	Coin	..	..	"	"	"
viii.	Tooth	..	..	H	\times	14-13 at 10".

* Provenance uncertain; identification ticket lost in removal.

No.

11.	i.	Flakes	..	..	D1-E3	\times	19-12 at 6"-10".
	ii.	Pottery	..	..	"	"	"
	iii.	Rock samples	..	..	"	"	"
	iv.	Quartz implement	..	..	"	"	"
12.	i.	Flakes	..	..	D2-G	\times	12-6 at 4"-10".
	ii.	Bone	..	..	"	"	"
	iii.	Charcoal	..	..	"	"	"
	iv.	Pottery	..	..	"	"	"
	v.	Ivory	..	..	"	"	"
	vi.	Quartz implements	..	..	"	"	"
	vii.	Rock samples	..	..	"	"	"
13.	i.	Flakes	..	..	A-B	\times	15-9. Surface to 6".
	ii.	Pottery	..	..	"	"	"
	iii.	Bone	..	..	"	"	"
	iv.	Shell and rhodent	..	..	"	"	"
	v.	Pottery	..	..	A-B	\times	11-10 at 6" to 8". *
14.	i.	Pottery	..	..	A-D	\times	19-14 at 10"-18" on B-E3, and at 6"-18" on remainder.
	ii.	Flakes	..	..	"	"	"
	iii.	Bone	..	..	"	"	"
15.	iv.	Bone	..	..	B $\frac{1}{2}$	\times	15-14 at 14".
	v.	Soil	..	..	D	\times	19 at 16".
16.	vi.	Iron	..	..	A $\frac{1}{2}$	\times	16-14 at 14"-16".
17.	vii.	Bone	..	..	C	\times	17 $\frac{1}{2}$ at 15".
	viii.	Pottery	..	..	"	"	"
	ix.	Shell	..	..	"	"	"
18.	i.	Flakes	..	..	A-D	\times	19-14 to 24".
	ii.	Bones	..	..	"	"	"
	iii.	Pottery	..	..	"	"	"
	iv.	Painted (?) Pebbles	..	..	"	"	"
19.	i.	Flakes	..	..	A-D	\times	14-8 to 18".
	ii.	Pottery	..	..	"	"	"
	iii.	Bone	..	..	"	"	"
	iv.	Shell	..	..	"	"	"
	v.	Pigment?	..	..	"	"	"
	vi.	Quartz implement	..	..	"	"	"

No.					
20.	i.	Pottery	..	..	A-D \times 8-0. Surface to 8".
	ii.	Flakes	..	..	" "
	iii.	Bone	..	..	" "
	iv.	Ivory	..	..	" "
	v.	Shell	..	..	" "
	vi.	Quartz implements	..	..	" "
	vii.	Wood (?)	..	..	" "
	viii.	Bone	..	..	B-C \times 1-0 at 4".
21.	i.	Pottery	..	..	D-Rock \times 8-0. Surface to 1".
	ii.	Flakes	..	..	" "
	iii.	Bone	..	..	" "
	iv.	Shell	..	..	" "
	v.	Charcoal	..	..	" "
22.	i.	Pottery	..	..	D-Rock \times 8-0. 1" to 2".
	ii.	Bone	..	..	" "
	iii.	Flakes	..	..	" "
	iv.	Tooth	..	..	" "
	v.	Wood	..	..	" "
	vi.	Shell	..	..	" "
	vii.	Charcoal	..	..	" "
	viii.	Quartz implements	..	..	" "
	ix.	Soil and rock samples	..	..	" "
23.	i.	Pottery	..	..	D-G \times 8-0 at 2"-3".
	ii.	Flakes	..	..	" "
	iii.	Bone	..	..	" "
	iv.	Shell	..	..	" "
	v.	Wood	..	..	G \times 1 at 2".
24.	i.	Pottery	..	..	D-G \times 6-0 at 3"-5".
	ii.	Bone	..	..	" "
	iii.	Flakes	..	..	" "
	iv.	Quartz implements	..	..	" "
	v.	Shell	..	..	" "
	vi.	Glass	..	..	" "
	vii.	Ash ?	..	..	" "
25.	i.	Flakes	..	..	D-G \times 6-0 at 5"-8".
	ii.	Bone	..	..	" "
	iii.	Pottery	..	..	" "
	iv.	Shell	..	..	" "

No.

	v.	Charcoal	..	..	D-G \times 6-0 at 5"-8".	
	vi.	Rhodent	..	..	"
	vii.	Quartz implements	..	..	"
	viii.	Bone	..	..	F2 \times 5 at 8".	
26.	i.	Flakes	..	..	A-G \times 2 $\frac{1}{2}$ -0 at 8" to bed-rock at 6"-16".	
	ii.	Bone	..	..	" " "
	iii.	Pottery	..	..	" " "
	iv.	Shell	..	..	" " "
	v.	Rhodent	..	..	" " "
	vi.	Quartz implements	..	..	" " "
27.	i.	Flakes	..	..	A-G \times 3 $\frac{2}{3}$ -2 $\frac{1}{3}$ at 8"-13".	
	ii.	Bone	..	..	" "
	iii.	Pottery	..	..	" "
	iv.	Quartz implements	..	..	" "
	v.	Shell	..	..	" "
	vi.	Stone ?	..	..	" "
28.	i.	Flakes	..	..	A-G \times 3 $\frac{2}{3}$ -2 $\frac{1}{3}$ at 13" to bed-rock.	
	ii.	Bone	..	..	" "
	iii.	Quartz implements	..	..	" "
29.	i.	Flakes	..	..	H-I \times 3 $\frac{2}{3}$ -0. Surface to bed-rock. (Soil from under rock-shelf.)	
	ii.	Bone	..	..	" " "
	iii.	Shell	..	..	" " "
	iv.	Rhodent	..	..	" " "
	v.	Pottery	..	..	" " "
29A.	i.	Flakes	..	..	G-I \times 6 $\frac{1}{2}$ -3 $\frac{2}{3}$ at surface to bed-rock (Soil from under rock-shelf.)	
	ii.	Bone	..	..	" " "
30.	i.	Flakes	..	..	A-G \times 6 $\frac{1}{2}$ -3 $\frac{2}{3}$ at 8"-14".	
	ii.	Bone	..	..	" " "
	iii.	Pottery	..	..	" " "
	iv.	Quartz implements	..	..	" " "
	v.	Shell	..	..	" " "
	vi.	Ivory	..	..	" " "
	vii.	Wood	..	..	" " "
31.	i.	Flakes	..	..	A-G \times 6 $\frac{1}{2}$ -3 $\frac{2}{3}$, to bed-rock.	
	ii.	Bone	..	..	" " "
	iii.	Stone ?	..	..	" " "
	iv.	Shell ? Wood ? Bone?	..	..	" " "

No.

32.	i.	Flakes	..	..	C-G \times 10-6.	Surface to 8"	between layers of rock, and surrounding them.
	ii.	Bones	..	..	"	"	"
	iii.	Pottery	..	..	"	"	"
	iv.	Quartz implements	..	..	"	"	"
	v.	Pigment (?)	..	..	"	"	"
	vi.	Shell	..	..	"	"	"
32A.	i.	Flakes	..	..	C-E \times 8-6,	at 6" to 14" from around rock.	
	ii.	Bone	..	..	"	"	"
	iii.	Pottery	..	..	"	"	"
	iv.	Charcoal	..	..	"	"	"
32B.	i.	Flakes	..	..	E-G \times 10-5.	Surface (?) to 11".	
	ii.	Quartz implements	..	..	"	"	"
	iii.	Pottery	..	..	"	"	"
	iv.	Bone	..	..	"	"	"
33.	i.	Flakes	..	..	A-C \times 8-6.	Surface (?) to 8".	
	ii.	Bone	..	..	"	"	"
	iii.	Quartz implements	..	..	"	"	"
	iv.	Pottery	..	..	"	"	"
34.	i.	Flakes	..	..	A-C \times 8-5.	From 12" above bed-rock to bed-rock.	
	ii.	Bone	..	..	"	"	"
	iii.	Pottery	..	..	"	"	"
	iv.	Quartz implements	..	..	"	"	"
	v.	Pigment (?)	..	..	"	"	"
35.	i.	Flakes	..	..	C-E \times 8-6.	From below rock lying 5"-8" above bed-rock to bed-rock.	
	ii.	Bone	..	..	"	"	"
	iii.	Quartz implements	..	..	"	"	"
	iv.	Rock sample	..	..	"	"	"
35A.	i.	Flakes	..	..	E-G \times 10-5.	8" to bed-rock.	
	ii.	Bone	..	..	"	"
	iii.	Pottery	..	..	"	"
	iv.	Pigment ?	..	..	"	"
	v.	Rock sample	..	..	"	"

No.

*35B.	i.	Flakes	..	..	E-G × 7-6. From 4" above bed-rock to bed-rock, underneath layer of rock.
	ii.	Quartz Implements	..	"	" "
	iii.	Charcoal	..	"	" "
	iv.	Dead roots (sample)	..	"	" "
36.	i.	Flakes	..	..	D-F × 19-9. From previous levels a layer of 1"-6" to maximum depth of 20".
	ii.	Bone	..	..	" " "
	iii.	Pottery	..	..	" " "
	iv.	Quartz implements	..	"	" "
	v.	Soil sample	..	D × 14 at 10".	
	vi.	Rock sample	..	E × 13 at 14".	
37.	i.	Flakes	..	..	D-F × 19-9. From previous level a layer of 6" to maximum depth of 26".
	ii.	Bone	..	..	" " "
*iii.		Pottery (1 piece)	..	..	" " "
iv.		Charcoal	..	..	" " "
v.		Quartz implements	..	"	" "
vi.		Soil sample	..	"	" "
38.	i.	Teeth	...	..	D-E × 14-13 at 21" (belonging to skeleton ?).
39.	i.	Pottery	..	..	E-I × 18-12½. Site of Xmas excavation to maximum depth of 28" from 2".
	ii.	Flakes	..	..	" " "
	iii.	Bone	..	..	" " "
	iv.	Charcoal	..	..	" " "
	v.	Wood ?	..	..	" " "
	vi.	Rock samples	..	..	" " "
	vii.	Shell	..	..	" " "
	viii.	Quartz implements	..	"	" "
40.	i.	Flakes	..	..	E½-F½ × 16½-12½, with skeleton at 18"-21".
	ii.	Bone	..	..	" " "
	iii.	Quartz implements	..	..	" " "
	iv.	Wood samples ?	..	..	" " "
	v.	Rock samples	..	..	" " "
	vi.	Charcoal	..	..	" " "

No.						
41.	i.	Flakes	..	..	B-D × 19-9 at 9"-31".	
	ii.	Bone	..	..	"	"
	iii.	Pottery	..	..	"	"
	iv.	Shell	..	..	"	"
	v.	Quartz implements	..	..	"	"
	vi.	Charcoal	..	..	"	"
	vii.	Stone ?	..	..	"	"
	viii.	Wood ?	..	..	"	"
42.	i.	Flakes	..	..	B-D × 19-9. From previous level to bed-rock.	
	ii.	Rock sample	..	..	"	"
	iii.	Quartz implements	..	..	"	"
43.	i.	Flakes	..	..	B-D × 12-11 ; B½-D × 15½-14, under flat stones on bed-rock.	
	ii.	Bone	..	..	"	"
	iii.	Rock samples ?	..	..	"	"
44.	i.	Flakes	..	..	B-D × 19-8" in flat inch of soil over bed-rock underlying flat rock at 177-182 cm. below datum.	
	ii.	Bone	..	..	"	"
	iii.	Soil sample ?	..	..	"	"
45.	i.	Flakes	..	..	A-B × 19-8. Layer of 6" taken from previous level to maximum depth of 28" . . . (Minimum 6").	
	ii.	Bone	..	..	"	"
	iii.	Pottery	..	..	"	"
	iv.	Charcoal	..	..	"	"
	v.	Shell	..	..	"	"
	vi.	Quartz implements	..	..	"	"
	vii.	Rock sample (?)	..	..	"	"
46.	i.	Bone	..	..	B × 17-16 at 26"-30".	
47.	i.	Flakes	..	..	A-B × 14-8. From 12"/28" to rock bottom.	
	ii.	Bone	..	..	"	"
	iii.	Quartz implements	..	..	"	"
	iv.	Pottery	..	..	"	"

APPENDIX VIII.

Pitt Rivers Museum,
University of Oxford,
4th November 1934.

* * * * *

As regards your exploratory work in the caves, I can only say that it is very greatly to be hoped that you will be enabled to continue them. Ever since the discoveries of microliths in the Vindyah Hills caves, the interest in these 'mesolithic' types has been increasing, and the spread of the microlithic culture is now proved to be very great. It is most important to get all the evidence possible from India, and, particularly, to ascertain to what extent a succession of stone-age cultures can be determined stratigraphically. The cave deposits when systematically searched seem likely to yield valuable stratigraphical evidence and this, from India, would be very valuable. Your own friends have produced some typical microliths of Tardenoisian type and I hope that you will go on and collect all you can, so that the range of types may be completely made out.



These two types are the chief ones to be noted in your series, which you kindly sent to me. Both the 'crescent' and the 'scalene triangle' types are characteristically Tardenoisian. There are other worked implements (drills, scrapers, etc.) of less defined form. Most of the specimens sent are just flakes, and it suggests that Jambudwip Cave may have been a factory site.

I will be very glad indeed to hear that you are going on with this important investigation, and I hope that I may be allowed to see your results. I feel that I must emphasise the archaeological importance of such work in India and I trust that you may be given every facility for pursuing your researches. They bear upon the early history of India and they help towards throwing light upon early migrations of peoples and cultures. I wish you best of luck and hope that you will have the support of the Government and local authorities in carrying on the good work.

(Sd.) HENRY BALFOUR.

FROM
THE SECRETARY
TO THE COMMITTEE FOR
ANTHROPOLOGY.
DEAR PROFESSOR HUNTER,

University Museum, Oxford,
25th May, 1934.

The Pachmarhi specimens were so eaten by insects that it was rather difficult to preserve much of the material that you brought. From the

fragments, however, Dr. Dudley Buxton, our Reader in Physical Anthropology, was able to write the enclosed report. We very much hope that you will be able to secure other specimens, as the caves in those parts might well make valuable contributions to the ancient history of India.

Yours Sincerely,
(Sd.) T. K. PENNIMAN.

REPORT.

With the exception of a porcupine tooth, included in 2, and pieces of stalactite in 5, all the remains submitted for examination are human.

They are as follows:

- A. Skeleton 2. Fragments of the skeleton of a child of about 6 or 7 years old. There is evidence even at that age of hard diet, such as is usual among primitive peoples. It is interesting to note that even at that early age there are signs of flattening and bowing of the thigh bone. This again is characteristic of primitive peoples.
- B. Skeleton 3. Very fragmentary remains of a child of about 11 years old. The teeth here also show a great deal of wear. They are small. Marked bowing of the thigh bone but otherwise too fragmentary for any definite conclusions.
- C. Skeleton 5. Lower limb and jaw of an adult, possibly a man. My impression is that the bones may be of some antiquity, but it is impossible to say. The individual was muscular, had small teeth and jaws and probably followed a primitive method of life. There is however no evidence, from the specimens submitted to me that racially he differed at all from the modern peoples of this region. It is of course impossible to make any definite statement without the evidence of the cranial bones which except for the jaws have perished. I am not fully convinced that the limb bones of 5 and the jaw belong to the same individual, but possibly difference in the surrounding may have affected the jaw differently from the other bones. It would be most valuable if some skulls could be obtained from which definite conclusion as to the racial affinities of the bones could be drawn.

(Sd.) L. H. DUDLEY BUXTON.

APPENDIX IX.

Field Notes.

October 23rd, 1934. Dorothy Deep Shelter.†

No. 1. Mapped out floor of cave in contour.

October 24th.—Commenced trial trench N. and S. to obtain evidence 1 of stratification of soil. Noticed about 1-2 feet below surface what appeared to be recently formed sandstone containing embedded vegetable matter—some sort of food or nutshell. Native name? Live burrowing insects were found below this layer.

Soil in S. section of trench quite dry and powdery, in spite of over 100 inches rainfall. In N. section (exposed to rain) soil still damp. Roots abundant and white ants.

October 25th.—Deepened trench to bed-rock.

October 26th.—Observed stratification of soil. Commenced removal of 2 top layer of soil. Removed from 3"-6" in area B-D \times 21-7. Soil below 2" quite damp as far in as line D evidently due to monsoon.

3 October 27th.—Continued excavation of area B-D2 \times 19-7. In A-B \times 18-15 gravel layer at 4 inches. But this is on steep outer slope and may be partly 4 or wholly Xmas sieving. Piece of pot (No. 2) at B-C \times 15-6". No. 3 small 5 piece of bone at D \times 12-3", at depth of 3".

N.B.—Surface soil of cave in practically exactly parallel plane to folding of rock, which is nearly horizontal, but slopes at about 1 in 20 towards N. and 1 in 8 towards W.

N.B.—From D1 to B along 19, to D1 to C along 9 fairly compact and moist soil of specimen 4 found uniformly to depth of 6" almost free of gitti.

6 N.B.—At 10 inches soil was so wet as to be almost unsievable at C \times 15-18. Discovered bones along D1 at 6" depth, between 15 and 16. So start 7 excavating area 19-12 \times D1-E3 to 6".

N.B.—Soil damp at E \times 14 at depth of 3". !

8 October 29th.—Excavated from surface to 4", area 13-6 \times D2-G, soil damp at 4" right up to G. Gitti reached at 3" on G.

9 Excavated to 8" area 12-6 \times G-rock. From this and previous area (i.e., 13-6 \times D2-G) small fragments of burnt bone—apparently human. Gitti reached at 2-3 inches.

10 Removed surface soil (probably in-falls) from Xmas excavation.

6 B-D2 \times 19-7, continued excavation to 10".

Charcoal at 8" C-D \times 14-15.

Tooth of very large animal at 11 \times C at 9".

† Marginal numbers refer to Appendix VI.

- 11 *October 31st.*—19-12 × D1-E3, 6" to 10".
N.B.—Soil of No. 4 variety present to depth of 10" along whole of section.
- 12 12-6 × D2-G, 4"-10" at 6'-8'. Bed-rock reached at 4-6 inches. Gitti mixed with soil at 9-12 along G at 4"-6" along D2 at 10".
- 13 A-B × 15-9 from surface to 6".
- 14 A-G × Trench-14, 10"-18". Charcoal at B3 × 18 at 12" (No. 6).
 No. 7. Sample of Muram soil found everywhere beneath No. 4 variety sample taken from D × 19 at 16".
- 15 B × 15 at 12". Charcoal.
 No. 8. B½ × 14-15. Animal's jaw found among charcoal.
N.B.—No flints found in this excavation N. of D.
- 16 Piece of iron found on A½ × 14-16 at 14"-16".
- 17 No. 9. Bone with charcoal at 17½ × C at 15".
- 18 *November 1st.*—Excavated D-A × 19-14 to depth of 24".
- 19 Excavated D-A × 14-8 to depth of 18".
- 20, 21 Excavated D-A × 8-0 to depth of 6". Animal jaw at B-C × 0-1.
N.B.—6-8 × B-G is a layer of rock, just below surface, at right angles to main shelf.
- 20 *November 2nd.*—Excavated 0-8 × D-A from 6" to 8".
- 21 Excavated D-rock × 0-8 to depth of 1" from surface. Flints begin at ½"-1" below surface, but are rare. 4 flakes only. This is loose surface soil.
- 22 1"-2" (where soft soil is found). Ashes at E-F × 1-2 at 2". Level of loose pebbles mixed with soil reached at 2".
N.B.—Soil quite dry.
- 23 2"-3". Soil dry.
- 24 3"-5". *Charcoal and ash, frequent, accompanied by crab shell. Soil somewhat damp at about 4". Along D-E at E × 0 bed-rock at 4". Flints more abundant in 0-2 × D-E, and D-B × 0-2.
N.B.—Soil quite dry at 5" in D-E½ × 2-6.
- 25 5"-8". Soil compact, and slightly damp even in F-G.
- 26 *November 3rd.*—Excavated A-G × 0-3 from 6"-8" to bed-rock, i.e., at 6"-16". Ordinary loose soil throughout, slightly damp mixed in F-G, with a good deal of murum, and in E—A with quartz pebbles and some chunks of sandstone.
N.B.—White-ant house in A-B section. So far wherever earth has been found solidly caked there has been evidence of white ants.

* Especially in area 1-2 × F-G.

- 27 A-G \times 28"-44" to level 3" above bed-rock* on line 28" only piece of pottery and that under rock-shelf at G.
- 28 A-G \times 28"-44" to bed-rock.
N.B.—Soil increasingly† mixed with chunks of sandstone or quartz pebbles. Soil only very slightly damp, except in neighbourhood of roofs in A-D Section. Bed-rock fairly flat—so that this excavation is virtually the last 3" of soil lying on the floor throughout this section.
- 29 H-I \times 0-44". Surface to bed-rock (*i.e.*, exclusively soil from under rock-shelf). Loose sand, practically free from sandstone chunks and gitti (*i.e.*, quartz pebbles) apparently windblown. Slightly damp owing to presence of roots.
- 30 44"-77" \times A-G, removed 2"-6" so as to leave 6"§ above bed-rock on line 44. Same loose, powdery soil as before, mixed with gitti and sandstone chunks. Very slightly damp.
Hearth at D-C $\frac{1}{2}$ \times 67"-77" in 1st 5 inches of this excavation (*i.e.*, about 14-18" below original surface with 3 or 4 very small bone fragments one core and one piece of pottery—but no crab).
- 31 44"-77" \times A-G, removed remaining soil to bed-rock. Same soil as above, but with large element of gitti especially in A-D and sandstone chunks the whole lying quite loose upon bed-rock, which continued to be almost level.
N.B.—The last 3 inches in A-D were absolutely barren, and nearly so in D-G.
- 32 November 6th.—Removed rocks from Section 6'-8' \times C-G. Surface to 12" above bed-rock on 6.
Note.—Rock was Cuccha, in same plane as cliff. Probably slip from shelf. Between the layers was ordinary soil (No. 4) among interstices this penetrated to within 4" of bed-rock.
- 33 6-8 \times A-C, to 12" above bed-rock on 6.
- 34 6-8 \times A-C to bed-rock.
- 35B E-G \times 5-7, cleared out soil lying on bed-rock under fallen rock to height of 2"-6". Soil quite damp, and interpenetrated with roots.
C-E \times 5 $\frac{1}{2}$ -8. Cleared out soil lying on bed-rock under fallen rock to height of from to 7".
- 36 November 7th.—D-F \times 9-19. Removed 1"-6" to depth of 20" on 19 and to 15" above bed-rock on 9. For some part this was grey soil, of the kind usually found on surface. Sample is N. 13, from D \times 14 at about 10" (?) from surface excavated to gitti level.

* *i.e.*, 13" below surface from 8".

† From 3"-8" above it.

‡ *i.e.*, from 8" \times 10"/14" below surface.

37 D-F \times 9-19, a further 6" to depth of 26" at 19 and 9" above bed-rock on 9. Below layer of gitti abundant brown soil (Sample No. 14). My impression is that this brown layer is prolific of Tardenoisian flints, probably more than the higher lying grey soil.

38 At 13-14 \times D-E, several teeth—human? Depth 120 cm. below datum level. Ditto bone fragment.

39 November 8th.—Excavated Xmas excavation site to 28-24" below surface from level of Xmas (2"-24").

H \times 18-14 at 95 cm. below datum. Tooth No. 15.

40 Skeleton at E $\frac{1}{2}$ -F $\frac{1}{2}$ by 12 $\frac{1}{2}$ \times 16 $\frac{1}{2}$ at 115 cm. below datum. Visible length 50".

N.B.—Pot was from surface. Ditto beer-bottle cap, though found at 22" (i.e., had fallen into bottom of Xmas pit!).

41 November 9th.—Excavated B-D \times 19-9 from level as follows:—

Along D—at 19.	102 cm.	at 14.	123 cm.
18.	105 "	13.	124 "
17.	106 "	12.	129 "
16.	115 "	11.	130 "
15.	121 "	10.	134 "

Along B—at 19.	114 cm.	at 14.	131 cm.
18.	118 "	13.	132 "
17.	125 "	12.	135 "
16.	126 "	11.	140 "
15.	129 "	10.	143 "

Below datum:—

To:—Along D—at 19.	122 cm.	at 14.	144 cm.
18.	126 "	13.	144 "
17.	133 "	12.	145 "
16.	137 "	11.	145 "
15.	141 "	10.	148 "

Along B—at 19.	128 cm.	at 14.	143 cm.
18.	130 "	13.	142 "
17.	136 "	12.	149 "
16.	138 "	11.	147 "
15.	141 "	10.	150 "
		9.	153 "

Soil mainly gitti and chunks of sandstone.

42 Same area B-D \times 19-9 from above level to bed-rock. Disclosed at
 43 11-12 \times D-B, two stones lying flat like paved steps on the floor. On removal there was a level inch of earth and gitti, absolutely flat and undisturbed since original formation. Isolated this earth and sieved it carefully. Definite find of flints.



FIG. 1. Rock-shelter Excavation, Diwali 1934. Newspaper covers skeleton.



FIG. 2. Diwali Excavation, 1934 showing skeleton
in situ.

Similar stone at $14-15\frac{1}{2} \times B\frac{1}{2}-D$. This similarly sifted with care and yielded flints. So this culture definitely extends in time from date before first rockfall.

N.B.—These three rocks really all one large piece with flat underside and fairly flat upperside. It slid off parent shelf and landed bottom down on the inch or so of soil already existent on floor of cave. It broke into 3 on impact. The same thing can be seen to have happened recently in another part of the cave. And several new falls can be seen preparing! The fact that these three pieces are found resting on a uniform layer of earth, and nowhere touching the floor beneath is proof that the earth covering the floor was there before the fall, and has been imprisoned ever since.

Holding *inter alia* the flints, that must therefore have been there before the fall.

- 42 November 10th.—Continued excavating $B-D \times 19-9$ to bed-rock. Flakes found on flat inch of soil over bed-rock, underlying flat rock at depth 44 of 177–182 cm. below datum.

Bed-rock is as follows :—

On D—at	19.	...	at	9.	162 cm.
	18.	...		8.	161 "
	17.	177 cm.		7.	165 "
	16.	180 "		6.	166 "
	15.	172 "		5.	167 "
	14.	159 "		4.	171 "
	13.	157 "		3.	169 "
	12.	158 "		2.	165 "
	11.	158 "		1.	159 "
	10.	163 "		0.	154 "
On B—at	19.	...	at	9.	170 cm.
	18.	...		8.	171 "
	17.	...		7.	170 "
	16.	188 cm.		6.	169 "
	15.	176 "		5.	170 "
	14.	169 "		4.	172 "
	13.	161 "		3.	173 "
	12.	162 "		2.	171 "
	11.	159 "		1.	171 "
	10.	168 "			

- 45 A-B $\times 8'-19'$. Removed 6" from previous level.

Note.—On the outside edge this means from 6"—12" below surface, while on B it means from about 22"—28" below surface.

- 46 Fossilised bone found at $B \times 16-17$ at 127–137 cm.

- 47 A-B $\times 8-14$, remainder to rock bottom.

- A-B $\times 14-19$. Removed (without sieving) to bed-rock. Sifted 3 trays from bed-rock at $18-19 \times B-A$ at depth of 5 feet. Results sterile.

DEFINITION OF DIRECT KNOWLEDGE IN THE NYĀYA-SŪTRAS.

BY DR. JWALA PRASAD, PH.D. (CANTAB.)

DIRECT knowledge (*pratyakṣa*) is defined in the *Nyāya-sūtra*, I. 1. 4, as “*indriyārtha-sannikarṣotpannam jñānam avyapadeśyam avyabhicāri vyavasāyātmakam pratyakṣam*”. Before translating the *Sūtra* it is first necessary to discuss the exact significance of the terms “*avyapadeśyam*”, “*avyabhicāri*” and “*vyavasāyātmakam*” used in the definition. To me the *Sūtra* appears to contain one of the most remarkable definitions of direct knowledge by means of sense-cognition that I know of, and also, at the same time, one which has been most misunderstood by the commentators and other later writers. The first part of the definition, viz., *indriyārtha-sannikarṣotpannam jñānam*—“knowledge produced by the contact of the sense-organs with the objects”, is the usual form of the definition of sense-cognition as found in the earlier literature. It is the last three epithets which form the characteristic feature of the definition in the *Nyāya-sūtra*. The first of these is “*avyapadeśyam*” about the meaning of which the commentators have differed from one another.

Vātsyāyana, Uddyotakara and Vācaspati Miśra have all of them discussed the meaning of “*avyapadeśyam*” in their commentaries. The first two of these hold that it means “unnameable”,¹ while the third maintains, or rather explains, the view that it is impossible to have a sense-cognition which is not connected with a name, and that the word “*avyapadeśyam*” means “that which is not the result of an inferential mark”.

Vātsyāyana says that “the name is not operative at the time of the apprehension of the object, it is employed only for the sake of expression (*vyavahārakāle tu vyāpriyate*). Therefore the cognition of an object, produced by the contact of sense-organs with it, is non-verbal (*asābdam*).²

Anticipating Vācaspati Miśra’s explanation of “*avyapadeśyam*,” Uddyotakara said : “Some commentators explain that the qualification ‘*avyapadeśyam*’ is added with a view to exclude inferential cognition. This is not right. Why? Because the definition already mentions the qualification ‘produced by the contact of the sense-organ with the object’. As a

¹ Dr. Ruben in his edition of the *Nyāya-sūtras* (Leipzig, 1928) appears to follow this, ‘nicht im Worte zu fassen’, but he gives no discussion.

² *Nyāya-bhāṣya*, I. 1. 4.

matter of fact, inferential cognition does not proceed from the contact of the cognised object with the sense-organ ; hence the definition³ could not apply to inferential cognition.”⁴

The following extracts from Vācaspati Miśra’s *Nyāyavārtika-tātparyātikā* clearly bring out his interpretation. First he shows that all sense-cognition must be connected with name. He says : “ Every object has a name ; there is nothing that is devoid of name ; this establishes the identity of the thing with the name ; the name is not the means by which the object is known ; as the object cow, when perceived, is perceived as ‘ this is a cow ’, where there is a distinct co-ordination between the *this* and the *cow*, both of which are in the same case ; thus things being identical with their names, the perception of things must involve the perception of the name also ; hence there can be no perception devoid of verbal expression.” Next he explains how “ *avyapadeśyam* ” has been used in the *Sūtra* to exclude inferential cognition : “ When from the contact of the sense-organ with objects we infer the motion of the sense-organ, the inferential cognition of this motion is also ‘ produced by the contact of the sense with an object ’, as it is from this contact that the inferential cognition proceeds. And it is with a view to exclude such inferential cognitions from the category of sense-cognition that the qualification ‘ *avyapadeśyam* ’ has been added. ‘ *Apadeśa* ’ is the statement of the reason or premise ; ‘ *vyapadeśa* ’ is the correct statement of the premise ; ‘ *vyapadeśyam* ’ is that cognition which is obtained from the said ‘ *vyapadeśa* ’ or the statement of the premise ; and ‘ *avyapadeśyam* ’ is that cognition which does not follow from the statement of the premise ; thus then ‘ *avyapadeśyam* ’ is equivalent to ‘ non-inferential ’.”⁵

Now in order to determine the meaning of “ *avyapadeśyam* ” according to the author of the *Nyāya-sūtras* we have to consider the use of “ *vyapadeśa* ” and “ *apadeśa* ” elsewhere in the older literature, and then the significance of the form “ *avyapadeśyam* ” as found in this particular aphorism. The term “ *apadeśa* ” occurs in the *Tantra-yukti* as given in Kauṭilya’s *Arthaśāstra*. Then we find it in the *Vaiśeṣika-sūtra*, IX. 2. 4, in which it is said that *hetu*, *apadeśa*, *linga*, *pramāṇa* and *karaṇa* are not different from one another in sense : “ *hetur apadeśo lingam pramāṇam karanam ityanarthāntaram*.” It is actually used in the sense of an inferential mark in the *Vaiśeṣika-sūtra*, III. 1. 14—“ *prasiddhi-pūrvakatvād apadeśasya* ”. Its contradictory “ *anapadeśa* ” is used in the *Vaiśeṣika-sūtra*, III. 1. 3, III. 1. 7, and III. 1. 8, in the sense of that which is not an inferential mark. In *VS.*, IX. 1. 1 and

³ That is to say, even without the qualification ‘ *avyapadeśyam* ’.

⁴ *NT.*, I. 1. 4 (*Indian Thought*, Vol. V, No. 1., pp. 40, 41).

⁵ Both the extracts are also quoted in *Indian Thought* under *NS.*, I. 1. 4.

IX, 1, 3, we find the word "vyapadeśa" itself : "kriyā-guṇa-vyapadeśabhāvāt prāg asat" and "asataḥ kriyā-guṇa-vyapadeśabhāvād arthāntaram". In the Nyāya-sūtras themselves, besides "avyapadeśyam", which has been used only once in the aphorism under consideration, "apadiṣṭa" and "apadeśa" have been used in other aphorisms. The meaning of "apadeśa" in all its forms is "name", "mark" or "sign" including the inferential sign called "hetu" or "linga".

It will appear that the controversy of the commentators over the meaning of "avyapadeśyam" is based upon a failure to understand the correct nature of the definition of direct knowledge as given in the Nyāya-sūtras. In the first place, it is wrong to think that the three epithets *avyapadeśyam*, *avyabhicāri* and *vyavasāyātmakam* are meant to express something in addition to what is said in the phrase "*indriyārtha-sannikarsotpannam jñānam*". They simply bring out what is implied in that phrase ; that is to say, the whole clause is an analytic proposition. Thus, even though the phrase "*indriyārtha-sannikarsotpannam*" might exclude inferential knowledge, the term "*avyapadeśyam*" in the sense of "non-inferential" will not be out of place in so far as it brings out the implication of that phrase. In the second place, the term "*avyapadeśyam*", as we have seen, may mean that which is not the result of both name and inferential mark ; and this meaning would be quite consistent with at least one view of the nature of direct knowledge, viz., that which regards it as both non-descriptive and non-inferential knowledge, corresponding to our modern conception of "Simple Apprehension" or "Acquaintance", and which came to be known as "*nirvikalpaka-pratyakṣa*" later on. Vācaspati Miśra's objection to Vātsyāyana's and Uddyotakara's interpretation of "*avyapadeśyam*" is evidently based upon the view that there cannot be any non-descriptive knowledge, which, although one which is held by some of the thinkers even in modern times, there is no reason to believe, was held by the author of the Nyāya-sūtras. On the other hand, as will be shown presently, the other two epithets also "*avyabhicāri*" and "*vyavasāyātmaka*" indicate that direct knowledge, as defined in the Nyāya-sūtra, corresponds to what is called "Simple Apprehension" or "Acquaintance" in modern terminology.

Even if we consider the three epithets as indicating the nature of direct knowledge over and above what is said in the phrase "*indriyārtha-sannikarsotpannam jñānam*" the term "*avyapadeśyam*" in the sense of "that which is not the result of a mark or sign" will serve the purpose of distinguishing between sense-cognition on the one hand, and inference and verbal testimony on the other. For it will appear that in inference and testimony also there is a contact of sense-organs with their objects, although not with the

particular object which is said to be inferred or known by testimony. But all that is said in the Śūtra is "the contact of the sense-organ with its object"—"indriyārtha-sannikarṣa", and this by itself will not exclude inference or testimony from the definition. In the knowledge of fire by noticing smoke, there is the contact of the eye with the smoke; and the knowledge of fire is the result of this contact of a sense-organ with its object. Similarly, in knowing, on the testimony of reports which appeared in the papers, that there was an earthquake at Quetta recently, there was the contact of my eyes with the words of the reports that I read in the papers, or of my ears with the words of the reports which might have been read out to me by some other person, and the knowledge of the earthquake was the result of such a contact. The knowledge of fire by inference, or of the earthquake by testimony, as described above, however, is the result of a certain mark or sign—*apadeśa* or *vyapadeśa*—which is meant to be excluded from the definition of "*pratyakṣa*", and hence the condition that it should be "*avyapadeśyam*".

That "*vyapadeśyam*" was used in the earlier literature to denote that which is the result of an inferential mark and that *pratyakṣa* was regarded by some early philosophers as *avyapadeśyam* in the sense that it is not the result of an inferential mark is conclusively corroborated by a passage in the Śabara-bhāṣya under *Mimāṃsā-sūtra*, I. 1. 5, where it is shown that while all cognition is knowledge by inference as the result of a mark in the form of the cognised object, and is, therefore, "*vyapadeśya*", *pratyakṣa* is direct apprehension of an object and hence it is "*avyapadeśya*".⁶

The next term to be considered in the definition of direct knowledge is "*avyabhicāri*", which means "non-discrepant", and has been taken to signify that direct knowledge is non-erroneous. "*Atasmins tad iti tad vyabhicāri ya tu tasmims tad iti tad avyabhicāri pratyakṣam iti*" says Vātsyāyana in his *Bhāṣya* on the *Nyāya-sūtra*, I. 1. 4. Although the connotation of "*avyabhicāri*"—non-discrepant—is not strictly the same as that of "*abhrānta*"—non-erroneous—which term was later on used by Dharmakīrti in his definition of direct knowledge, there is no reason to believe that the author of the *Nyāya-sūtras* did not use it in the sense of "non-erroneous", for the term "*avyabhicāri*" appears to have been freely used as an equivalent of "*abhrānta*" by quite a good number of early authors.⁷ The main object in laying down the condition that direct knowledge should be non-erroneous is to emphasise its epistemological nature as a *pramāṇa* as distinguished

⁶ *Na cārtha-vyapadeśyam antareṇāpi buddheḥ rūpopalambhanam, tasmān nāvyapadeśyā buddhiḥ, avyapadeśyam ca nāpratyakṣam.* *SB., Bibl., I., p. 10.*

⁷ *Śabara-Bhāṣya*, pp. 7 and 8.

from the mere psychological process of sense-cognition, as it was defined by the earlier authors.

The third term “*vyavasāyātmakam*” also explains one of the essential characteristics of direct knowledge, viz., that it is definite; that is to say, what is perceived directly is of a definite character so far as it goes. For example, if I hear a sound, it is bound to be of a definite pitch and of a definite quality, although I may not know the nature of its source.

Thus the definition of *pratyakṣa* in the *Nyāya-sūtra* would be: “that cognition which is the product of the contact of the sense-organs with the object; which is non-inferential and non-descriptive; non-discrepant and definite”. This corresponds to the later *nirvikalpaka-pratyakṣa* in Indian philosophy, and to “Simple Apprehension” or “Acquaintance” in the systems of some modern thinkers, with this exception, which I think is correctly made, that, according to the definition in the *Nyāya-sūtra*, *pratyakṣa* is said to be definite, while the *nirvikalpaka-pratyakṣa* has been supposed to be vague in character.

Those who draw a distinction between the *nirvikalpaka* and *savikalpaka pratyakṣa* later on have tried to find a support for this division in the definition of *pratyakṣa* in the *Nyāya-sūtra* by suggesting that the term “*avyapadeśyam*” implies the *nirvikalpaka*, and “*vyavasāyātmakam*” the *savikalpaka pratyakṣa*. The construction of the *Sūtra*, however, does not in the least admit of this interpretation; for evidently “*avyapadeśyam*” and “*vyavasāyātmakam*” do not signify two alternative characteristics of *pratyakṣa* in the *Sūtra*.

In the course of an examination of the nature of direct knowledge in the *Nyāya-sūtras* an objection is raised that all sense-cognition is a case of inference; for it takes place by means of the cognition of only a part of the cognised object. This is met by the assertion that only so much of cognition is direct knowledge as is cognised directly.⁸ This statement is a clear indication of the fact that, according to the author of the *Nyāya-sūtras*, direct knowledge is only that sense-cognition which is simple apprehension, or mere acquaintance with the sense-data. All complex perception, such as was called *savikalpaka-pratyakṣa* later on, and as is called knowledge by description in modern philosophy, has an inferential element in it.

⁸ *NS.*, II. 1. 31. *Na, pratyakṣena yāvattāvadapy upalambhāt.*

CULTURAL RELATIONSHIP BETWEEN INDIA AND PERSIA FROM THE EARLIEST TIMES TO 1000 A.D.

BY SHAMS-UL-ULEMA M. A. GHANI, M.A., M.LITT. (CANTAB.)

INDIA and Persia are neighbours, and have cultural connections with each other since times out of memory through the contacts of their civilizations and literatures. Their cultures, though distinct to-day, bear the same relationship to each other as exists between two sisters married in distant homes. The same is true of their spoken tongues, Sanskrit and Persian, which belong to the same family and bear blood-relationship.

Time was when these languages possessed similar form and style, and were governed by like motives, spirit and disposition. The origin of these languages is identical, a fact, now a commonplace in philology and linguistics. Nevertheless, what has not been realized fully is that when India, for the first time, heard the Sanskrit accents from the lips of her Aryan conquerors, she really was listening to the cadences of Persian speech. The Aryan race had spread out to India and Persia from a common centre somewhere in Central Asia. Thus, it is easy to look upon the advent of Persian proper in India as the settling down of a sister in her sister's home.

We find that almost all the invading or conquering races, except of course the Arabs, who had entered India in ancient and mediæval times, did so through the Passes lying on the North-Western frontier. This means that they came to India speaking either Persian or the language highly coloured by the Persian idiom, owing to the dominating influence of Persian civilization in Central Asia. Hence, it is obvious that Persian civilization and language has had more than just something to do with the culture of Hindustan for some thousands of years. The one has vitally affected the culture of the other. "It seems pretty certain," says Browne, the famous historian and authority on Persian affairs, "that the Indians and Persians were once united in a common Indo-Iranian race located somewhere in the Punjab."¹

The Persians, long before the rise of Islam, had close relations with India, and their monarchs, until the Sasanian regime, wielded authority over the Western Punjab and the Provinces of Sindh and Baluchistan. In

¹ *A Literary History of Persia*, Vol. I, p. 33.

the Achæmenian period (B.C. 522), when the Persian Empire was at its zenith, King Darius had deputed one of his officers to discover the sea-route to India.² This discovery finally led to the conquest of Sindh, part of the Punjab and Afghanistan, and their annexation to the Persian Empire. The relations thus established between the two great peoples of Persia and India evoked sympathy for each other's culture, language and living.

There is further evidence to show that the Jats of the Punjab, whom the Arab historians have styled *būj* (Zut), formed part of the Persian army which fought with the Arabs in the famous battle of Nihawand under Yezdgurd III, the last Sasanian king of Persia.³

Besides, thousands of Persian families residing in Khurasan had been expelled from their country by the order of the Persian king, Afrasiyab. They fled to the Punjab, and found a home and shelter in the districts round about Lahore and in the tracts lying between Lahore and Delhi. Their permanent settlement here gave rise to an important city of Persian population which swelled with their descendants and the incoming fresh bands of the Persians.⁴ This is the first great instance of direct historical connection of Persia with India which planted the seed of Persian culture securely in the Indian soil. It also explains why the Persian speech in India had a miraculous growth, and remained intact for centuries, rivalling its glories in Persia itself. Apart from this earliest relationship which existed in the Pre-Islamic era, we see that a still closer bond of union subsisted between the peoples of the two great countries after the landing of the Arabs in Sindh.

Persia's fondness for the Sanskrit story of *Kalilah-Damnah*, and the fervour shown by the Persian monarch, Anushirwan the Great, in deputing a special envoy, Barzawah, who was a scholar of Persian and Sanskrit, to secure Persian translations of this and other books of Sanskrit, is a fact of history. The editor of the Arabic version of *Kalilah-Damnah* describes the great Persian enterprise in the following words :

ٌظُلَّ هَذَا الْكِتَابُ مَحْفُوظًا فِي خَزَانَةِ مَلْكِ الْمُهَمَّادِ بِحِصْرِ صَمْرٍ عَلَى أَنْكَنْعَزِ
كَأْسِمْحُونَ لِسُوَاصِمْ بِالْأَطْلَاعِ عَلَيْهِ شِيرِمَا قَتَمْ مِنْ نَقْلِهِ إِلَى الْيَتَبِيَّةِ حَقَّ الْقَرْفِ
السَّادِسِ الْمَيْلَادِ لِلْأَنْصَارِ عَرْشِ فَارِسِ إِلَى كَسْرَى الْقَوْشِيرَوَاتِ وَكَانَ مَبِالِاسَابِ
الْأَصْلَاحِ وَأَذْنَى نَقْلِ الْعِلْمِ وَالْأَدْبِ فَبِلْغَهُ خَبَرَ هَذَا الْكِتَابُ فَاسْتَشَارَ خَاصَّةً فِي رَجُلٍ

² Rogers, *A History of Ancient Persia*, Chap. "Darius".

³ Tirmisi, Chap. "Abwab ul Amsal".

⁴ Muntakhab, Vol. I, p. 35.

⁵ Introduction, p. 22, Cairo.

يبعد بله لعنة المممة يكون عاراً فابا اللسانين السنكريتي والفارسي مع علم وفلسفة
فاختاروا الله طبيباً فيليس فاسمه بروزويه ابن ابراهيم فاسري عليه امر الكتاب وحضره على تقله
و نقل ما تيسر من على ما في الهند التي ليس في اللغة الفارسية شيء منها وامده بما يحتاج
إليه في سبيل ذلك الغرض - فسامي بروزويه بعشرين جراماً من المال كل جرام فيه عشرة
الآف دينار حتى قدم بيلاد الهند يجعل يجلس الحكام ويُسأل خواص الملك وجلساته من
العلماء وال فلاسفه ويوجههم انه رجل غريب قد ملأ بلادهم طلب العلم والأدب وانه
محتاج الى معرفتهم ولم ينزل كذلك . وهو يبحث سيراً عن مكان ذلك الكتاب في
خبوط مليل استخدم فيه وهاهـة ودراته حتى ظفر بالكتاب و نقله من اللسان الحندي
السنكريتي الى اللسان الفارسي و هو يومئذ الفيلوى . و نقل غيره من كتب العلم و عادى الى
الوشيروان فاجان بالأموال والبسه الش裘 واجلسه على سريره و شريفاً و زاده
في اجلاله

This book was safe in the treasures of the kings of Hindustan, and was guarded like a most cherished treasure. No one could get a clue to it till the sixth century A.D., when the throne of Persia passed to Kisra Anushirwan. During this period once only was it approached and translated into the Tibetan language. He loved peaceful means and the acquiring of knowledge and literatures. The news of this book reached his ears, and so he consulted his courtiers in the matter of finding out a man who could be sent on this enterprise, and who was well versed in Sanskrit and Persian, and was a sound scholar of philosophy. So they selected for him a physician who was also a philosopher whose name was Barzawaih-Ibn-i-Azhar. Anushirwan then divulged to him the secret of this book, and urged him to secure a copy thereof and also of other sciences of India which he could get access to and of which nothing did exist in Persian language. He provided him with necessary provision for the achievement of this object. So Barzawaih set out on his journey with twenty bags of provision in each of which there were ten thousand *dinars*, until he arrived in India. Here he used to sit in the company of the learned, and sought to find out the favourites of the king and his chief associates from among the learned and the philosophers and he made them understand that he was a stranger who came to their cities for

acquiring knowledge and their literature, and that he needed their help and support.

He continued to do this, and secretly tried to discover the place of this book, which was the custodian of their intellect and wisdom, in his long inquiries and searches, till at last he succeeded in getting access to it and in translating it from the Indian Sanskrit language into Persian language, which is called Pahlawi in these days. Besides this, he copied other books of Hindu learning, and returned with them to Anushirwan who rewarded him with cash and property, and put on his head the crown, and made him sit on his throne to exalt his rank and to add to his glory.

Soon after the Persian families and the Arabs residing in Persia came to Sindh, they found themselves pre-occupied with a taste for the native tongue, so much so that they even produced poets of Hindi, and their works were appreciated by the people and well received at the Courts of the Hindu Rajas. Those of the Arabs and Persians who had settled in Sindh knew Prakrit well, and their poets composed poems both in their own mother-tongue and Sanskrit. An instance of it is to be found in the person of a young poet, who had taken his residence at Mansurah, the Capital of Sindh. He composed an ode in the current Prakrit in praise of Rajah Mahrug of Alura,⁶ a city on the east bank of the Indus in upper Sindh. This poem was so much appreciated by the Rajah that he sent a special messenger who escorted the young poet to the royal court, where he was greatly honoured and rewarded. He further translated the Holy Quran into Hindi at the desire of the Rajah, having stayed for three years at the court as his guest.⁷ The contemporary geographers and historians of Arab descent, who travelled through Persia to Hindustan, have commented on the life of the Muslims in Sindh in those days. They observe that the feeling of amity and fellowship between the Muslims and the Hindus was so stable that the Muslims in Sindh became one with the Hindus, and spontaneously followed the Indian customs and ceremonies. They took for their wives Hindu women, showed their liking for the spoken tongues, and fondly adopted the Indian titles and Hindi names.⁸ It is scarcely necessary to mention that considerable modifications were effected in the Indian languages current in the districts scattered between Multan and the Arabian Sea, owing to the steady influence of Muslim culture in the land. The new-comers, as a matter of course, came to look upon India as their home, and so did their descendants.

⁶ Buzurg bin i Shahryar, 'Asaib ul Hind, p. 4 (Leyden, 1906).

⁷ Ibid.

⁸ Bashshari, Ahsan ul Taqasim, Chap. on "Sindh".

One of the most remarkable features concerning the lives of these early settlers, as well as their predecessors, is that the Hindus were profoundly impressed with the purity of their lives, their zeal for the new faith, and their principle of world-wide brotherhood which they preached. This striking feature attracted many an Indian to Islam at once. An idea of the conversion to Islam can be had if we are told that over fifty thousand people were received into the Islamic fold every year.⁹ The Arab historian Ibn-i-Hauqal, who visited Sindh in person in the second quarter of the third century A.H., speaks fervently of the happy relations prevailing between the Hindus and the Muslims, and more particularly of the religious tolerance shown by the members of one community for the other. For instance, he pays a high tribute of praise to Rajah Bilahri for his just and generous treatment of the Muslims, and the esteem in which he held their mosques, in the following significant passage :

١٠

وَلَيْسَ فِي مَلُوكِ السَّينِدِ وَالْهِنْدِ مَنْ يَعْنِي الْمُسْلِمِينَ فِي مَلَكَةِ مُثْلِ الْبَاهْرِيِّ فَا
لِاسْلَامِ فِي مَلَكَةِ عَزِيزٍ وَمَصْوَتٍ وَلِهِ مَسَاجِدٌ مَبْنَىٰ وَجَوَامِعٌ مَعْوَرَةٌ لِلصَّلَاةِ
الْخَيْرُ وَيَلِكَ الْمَلَكُ مِنْهُمُ الْأَرْبَعِينَ سَنَةً وَالْخَيْرُ فِي صَاعِدٍ وَأَهْلِ مَلَكَتِهِ
يَرْعَوْنَ أَنَّهُ اَنْطَالَتْ أَعْمَارُ مَلَكٍ كَهُمْ لِسَنَةَ الْعَدْلِ وَأَكْرَامِ الْمُسْلِمِينَ .

There is none among the rulers of Sindh and Hind who in his territory respects the Muslims like Rajah Bilahri. In his kingdom Islam is honoured and protected. And for them mosques and "congregational" mosques, which are always full, have been built for offering prayers five times. Every one of these kings rules for forty or fifty years or more. It is the general belief of the people of his kingdom that the lives of these kings are long because they administer justice and honour the Muslims.

After Bilahri, he places the Rajah of Tafin¹¹ in this respect, and compliments him as follows :

١٢

شَرِيفٌ مِنْ الْمَلَكِ مَلَكُ الطَّافِنِ مَوَادِعُ لِمَنْ حَوَلَهُ مِنْ مَلُوكِ مَكْرُومِ الْمُسْلِمِينَ

⁹ Lane-Poole has used the expression Turk for "Muslim", cf. "It has been estimated that about fifty thousand Hindus turn Turk annually." *Mediaeval India*, Intro. p. 4.

¹⁰ Masudi, *Murūj*, Chap. XVI.

¹¹ No city of this name could be traced on the map. Elliot in his history has taken it to mean the hilly tracts or the mountainous region of salt, Vol. I, p. 381.

¹² *Murūj*, Chap. XVI.

Balazuri also has quoted instances of the kind and just treatment meted out to Muslims by the Hindus. Once in an encounter against *Sandan*, a coast town of Sindh, the Hindus gained victory over the Muslims, and captured the town. But they never molested the mosques nor the liberty of the Muslims as citizens. He observes :

١٣
شَرْمَانُ الْمُهَنْدِ بَعْدَ غَلْبَتِهِ عَلَى سَنْدَانَ فَتَرَكُوا مَسْجِدَهَا لِلْمُسْلِمِينَ تَجْمَعُونَ فِيهَا وَيَدْعُونَ لِلخَلِيفَةِ

A curious story is told of the high sense of Hindu justice of a Rajah of Gujarat by the Persian historian 'Aafi in his "Jawami".¹⁴ He writes that when he happened to visit Khambayat (Cambay) which was a big town on the coast of Gujarat, he found there a small population of devout Muslims who entertained travellers, and also extended their hospitality to him. During his stay in the town he heard a story of proverbial justice which runs as follows :

In the days of Rajah Jang, there was a mosque which had a minaret. From the top of this minaret the *Mu'azzin* gave the call for prayers. It so happened that the Parsis incited the Hindus to make war on the Muslims. The latter's mosque with its *minaret* was razed to the ground, and along with it eighty Muslims, who had taken their stand by the mosque, were slain. 'Ali, the Imam of the mosque, fled to Nahrwala, the capital of the Rajah, and tried to approach him for the redress of the wrong done to the mosque and the Muslims. Failing access to the Rajah, he made complaints to the officials at the Court, but no one paid any heed to his representation. Not discouraged at this, he composed a poem in current Hindi, narrating therein the full story of the atrocity and the official indifference, and planned to present this versified petition to the Rajah, when he rode out for *shikar* on the appointed day. The opportunity soon came, and the Imam, who had carefully hid himself in a bush in the Rajah's track, rushed out and boldly stood in front of his elephant, and prayed that his poem be heard. The Rajah took compassion, and ordered his *Mahout* to stop the elephant. He then heard the versified Hindi petition of the Imam from the beginning to the end with forbearance and attention. When the Imam finished, the Rajah took this poem and gave it to his Secretary, with instructions to remind him of it on his return from *shikar*. That day the Rajah did not tarry long in the jungle, and returned early. He called his Minister and told him that he felt tired and would remain within the palace and rest for three days, adding that the usual work of the State should be carried on during these

¹³ *Futuh*, Chap. "Fatuh ul Sind".

¹⁴ Chap. II, MSS. Shibli Academy, Azamgarh.

three days without reference to him. Having said this, he retired, and when the night fell, he robed himself in a merchant's dress, and on a fast camel rode to Khambayat, which lay at a distance of forty *farsang* from Nahrwala. The next day he reached his destination, and went about the streets of the city, listening to the talk of the passersby and the shop-keepers. He also inspected the spot, and made casual and unconcerned inquiries about the incident from the residents of the quarter. He heard every one say that great tyranny was done to the poor Muslims, their innocent blood was shed, and their shrine with its minaret had been razed to the ground. The Rajah then went to the coast, and taking out his jug filled it with the sea-water, sealed it, and repaired to his capital, covering the distance as before in one day and one night. On the next day after his arrival, he held a public *darbar*, which was attended by the people and the officials of the State. The Imam of the mosque was also present. When the *darbar* was in full swing, the Rajah suddenly recollects the Muslim petitioner's case, and asked his Minister to produce the Imam and his Hindi composition. The Imam appeared and made his obeisance. The Rajah ordered him to read his poem. When he finished, the officers of the Rajah unanimously declared the contents to be false. Thereupon the Rajah ordered his ewer-bearer to bring the sealed jug, break the seal, and distribute the water to every one of them. They all tasted it, and found it to be the brackish water of the sea. The Rajah then related in the *darbar* how he had gone in person to Khambayat in the guise of a merchant to ascertain the facts and had returned with the truth. He declared that the Muslims were the oppressed, and in his kingdom no community should come to grief, and his *raj* could not tolerate such oppression. He then ordered that the ring-leaders, who had a hand in the crime, should be brought to book, and the Muslim sufferers be awarded from the royal treasury one lac *balutra* (silver coin) to rebuild their mosque and its *minaret*. The Imam received *khil'at* and gifts from the Rajah, which were retained in the mosque for centuries afterwards as a token of the Rajah's unparalleled act of clemency and justice to the aggrieved Muslim subjects of his State. The Persian traveller was an eye-witness to these gifts which were there as exhibits till 665 A.H., when he visited Cambay.

On the entry of the Persian king Sultan Mahmud into Hindustan, such relations even increased. The Persians cultivated a taste for Sanskrit ; while the Hindus set themselves to acquire a knowledge of Persian. The great Persian astronomer and mathematician, Abu Raihan-al-Biruni, who devoted himself to Hindu lore, is a most notable instance in history.

SVAYAMBHŪ AND HIS TWO POEMS IN APABHRAMŚA.

BY HIRALAL JAIN, M.A., LL.B.
(*King Edward College, Amraoti.*)

IN my bibliographical notes on Apabhrāmśa Literature published ten years ago,¹ I had occasion to make mention of two important and large poems in the Apabhrāmśa language—the *Pauma-carī* and the *Harivamśa-purāṇa* of Svayambhūdeva. I had not then myself seen any manuscript of the works and the information given in that note was obtained through others. I have since had the opportunity of closely examining two MSS. of PC. and one of HP., and the information presented here is the result of that examination.

The PC., as its very name indicates, describes the life of Padma, that is, Rāma, and, like the *Rāmāyaṇa* of Vālmīki, it is divided into sections called *Kāṇḍas*, though their number here is only five and not seven. The first twenty chapters, called *Sandhis*, form the *Vidyādhara Kāṇḍa*, the next 22 the *Ayodhyā Kāṇḍa*; then *Sundara Kāṇḍa* has 14, *Yuddha Kāṇḍa* 21 and *Uttara Kāṇḍa* 13. Thus, there are, in all, 90 *sandhis*² each of which is again divided into a varying number of passages called *Kaṭavakas* the total number of which, in the whole work, is 1269, calculated to be equal to 12,000 *ślokas*. The prevailing metre of the work, as in most other Apabhrāmśa works, is *Pajjhāṭikā* or *Paddhaḍiā*.

The HP. describes the *Mahābhārata* story and is completed in 112 *sandhis* containing, in all, 1937 *kaṭavakas* calculated to be equal to 18,000 *ślokas*, thus being one and a half time larger in extent than the sister poem. The prevailing metre here also is *Paddhaḍiā*. The poet himself calls this work *Harivamśa-kahā*³ and also *Riṭṭha-nemi-carī*⁴ (SK. *Ariṣṭanemi-carītā*) from the fact that it includes the life of *Ariṣṭanemi*, the 22nd *Jaina Tīrthamkara*.

The opening and closing passages of these two poems, as well as the colophons appended to their *sandhis*, furnish us with a good deal of information about their authorship. From them we learn that the author of both

¹ *Allahabad University Studies*, Vol. I, 1925.

² See Appendix 2, end.

³ See Appendix 4, line 13.

⁴ See Appendix 6.

the works is *Svayambhū* or *Sayambhūeva* (SK. *Svayambhūdeva*) who bore the titles of *Kavirāja-cakravarti*⁶ (emperor of poet-kings) and *Chanda-cūḍāmaṇī*⁷ (crest-gem of metrics) and that he was the son of *Mārutadeva* and *Padmini*.⁸ In one MS. of *Pauma-cariu*, there occurs a verse, at the end of *sandhi* 42, which not only makes mention of the poet's wife, but also tells us that she assisted the poet by writing out the *Ayodhyā Kānda*.⁹ Her name was *Āyiccambā*. *Pauma-cariu* was composed under the patronage of Dhanañjaya and the HP. under that of Dhavalaiyā, as we know from the colophons. Both the names perhaps connote the same individual. We are not told who this patron of letters was, but the absence of any regal or ministerial title leads us to infer that he was probably some rich merchant (Seṭṭhi).

Somehow, *Svayambhū* left both these works incomplete. PC. upto *sandhi* 82 and HP. upto 99 are his composition and the rest of them was composed by his son *Tribhuvana Svayambhū* who does not expressly offer any explanation for his father's incompleteness. He merely says that the rest had somehow (*Kaha vi = kathamapi*) remained uncomposed by his father, and calls his own part of the PC. a supplement (*Sesa*).¹⁰ At the end of *sandhi* 99 of HP. we have a verse telling us that the poet proceeded to compose the HP. after having finished PC. and yet another work of great merit *Suddhaya-caria*.¹¹ This information precludes us from imagining that his PC. was interrupted by any calamity like death. The explanation that suggests itself to me is that perhaps the poet regarded his PC. as complete at *sandhi* 82 which ends with the reunion of Rāma with his two sons *Lavaṇa* and *Ankuśa*. The same, however, cannot be said with regard to HP. *Tribhuvana Svayambhū* does not call this part of his contribution a supplement but simply says that he had completed what was left incomplete by his father and that he devoted himself with one mind to shoulder the burden devolved upon him from his father.¹² We do not know of any work done by *Svayambhū* after it. Here, presumably, the activity of *Svayambhū* was cut short by death.

In the colophons to the *sandhis* of both the works *Tribhuvana Svayambhū* tells us that he was the younger son of *Svayambhū* and was supported by

⁶ See Appendix 2, verse 1.

⁷ See Appendix 2, verse 8.

⁸ See Appendix 1 (b), line 9.

⁹ See Appendix 3, *sandhi* 42.

¹⁰ See Appendix 3.

¹¹ See Appendix 6.

¹² See Appendix 6, *sandhi* 110.

Bandaiyā who appears to be the son of Dhanañjaya or Dhavalaiyā, his father's patron.¹² He calls himself "Strong in grammar and well-footed in the knowledge of the *Āgamas*, and bearing the burden of poetry while yet young."¹³

Yet a third hand is visible in the composition of the HP. as we have it. After the usual colophon to *sandhi* 109, mentioning Svayambhū and Tri. S. as the authors, we read two verses which may be literally translated as follows :—

" This well-known subject-matter has been described by the ascetic Jasakitti (SK. Yaśahkīrti) whose sole intention was to restore the chapter left out by the poet-king. They really live in this world as good men having manifold virtues and possessing a sense, who revive the shattered poetry, family and wealth of others."¹⁴

The name *Jasakitti* also occurs in the ending verses (*Ghattas*) of *sandhis* 106, 108, 110, 111 and 112, where it also has a sense appropriate to the context as is the case with the name Svayambhū which similarly occurs in most of the ending verses.¹⁵ In the last passage of *sandhi* 112, after an account of the oral tradition of the Bhārata story from the *Jaina Tīrthamkara* Mahāvīra down to Svayambhū through a line of teachers, we are told that Svayambhū reduced it to writing in *Paddhadiā* metre and what had been left out at the end has been restored by the ascetic *Jasakitti*. He also tells us that he applied himself to the task by the kind persuasion of his preceptor *Guṇakīrti*, that he completed his composition on the 14th lunar day of the month *Bhādrapada* and that he recited it before the Jaina householders assembled for the purpose in a Jaina temple near Gopagiri, having himself been specially invited to *Kumara-nagara* by a certain merchant.¹⁶ After considering every piece of information that is before us concerning the question, my own idea about Yaśahkīrti's performance is that he made certain interpolations in the text of the six *sandhis* mentioning his name, with a view to amplify the descriptions of Tribhuvana Svayambhū, like the poet *Gandharva*, the son of Kanhaḍa, who made interpolations in the text of *Jasaharacariu* of Puṣpadanta, but unlike him in not clearly indicating his contributions. However, by a closer study of the link of the story and the style of composition we might be able to mark out what stands to the credit of Yaśahkīrti. This Yaśahkīrti, the pupil of *Guṇakīrti*, is, no doubt, identical with the preceptor of *Simhasena alias Raidhu*, the author of

¹² See Appendix 3, *sandhi* 85.

¹³ See Appendix 2, verses 3 and 4.

¹⁴ See Appendix 6, *sandhi* 109.

¹⁵ See Appendix 6.

¹⁶ See Appendix 5.

Mehesaracaria and many other works in Prakrit and Apabhramṣa, who flourished at Gwalior during the 15th century at the time of the Tomara king *Kirtisimha*.¹⁷ Yaśahkīrti himself is also the author of some independent poems in Apabhramṣa. I have seen manuscripts of his *Candappaha-cariu* and *Harivamṣa-purāṇa*, quite different from the present work, in the manuscript stores at Jaipur.

In the MSS. of PC., at the beginning and at the end, we find a number of verses in praise of Svayambhū and his illustrious son. Some of these verses are also found scattered at the end of different sandhis of both the works, specially in the portions contributed by *Tribhuvana Svayambhū*. As they are important, a full notice of them might be taken here. The verses at the end of PC. may be rendered as follows¹⁸:—

"Tribhuvana Svayambhū was the one son born to the poet-emperor, who composed this supplement of PC. like its crest-gem. By this supplement he has spread in this world the glory of the king of poets who had left his victory incomplete. Who could adequately praise Tri. S. who, like a bull, bore the burden of the poetry of Svayambhū even while yet young? This bull of Tri. S. has a strong hump in the form of grammar, large feet in the form of the *Agamas* and bears the burden of poetry for the holy Jina. He composed the wonderful *Pancami-cariam* thereby proclaiming what had been described by *Caumoha* and *Svayambhūdeva*. The sons of other people merely learn the letters like a parrot in a cage, but the son of *Kavirāja* was born like Śuka (Śukadeva) from a female parrot (*suki*) (or, like knowledge, *śruta*, from the sacred lore, *śruti*). If Tri. S. was not born as son to Svayambhūdeva, who would have rescued the poem, the family and the poetry after him? If the *Chanda-cūḍāmaṇi* had not obtained for his younger son Tri. S. who could have taken care of the *Paddhadiā* poem *Śri Pancami*? All people inherit the wealth of their fathers but Tri. S. inherited high poetic talents. Except Tri. S. which of the pupils could have crossed the ocean of the poetry of Svayambhū? Thus, the charming PC., composed by Svayambhū, has been completed by Tri. S. The holy remainder of the PC. composed by the son of Kavirāja, the son of Māruta, is now complete and may Bandaiyā obtain the holy merit for it. Tri. S. composed it out of regard for the first son of Bandaiyā. May all of them, Bandaiyā, Nāga, Śripāla and other righteous persons enjoy health, prosperity, peace and happiness! Let this good girl of Rāma story, with limbs consisting of the seven large *sargas*, and adorned with the three jewels, produced by Tri. S. be wedded by Bandaiyā with his mind and body."

¹⁷ See *Alld. Uni. Studies*, Vol. I, p. 175.

¹⁸ See Appendix 2.

The verses at the beginning of PC. are¹⁹ :—

"Word is supreme in the mouth of *Caumuha* and meaning is charming in the words of *Danti*, while both these are present in the poetry of *Svayambhū*; what shall other poets do? Poets, even to-day, cannot match the words of *Caumuha*, the sweet tongue of *Svayambhūdeva* and the *Gograhanā* of *Bhadra*. Poets even to-day cannot approach *Svayambhū* in water sport (*Jala-kṛīda*), *Caumuhadeva* in *Gograhanā-kathā* and *Bhadra* in *Matsya-vedha*. The mad elephant of *Apabhramśa* wanders about at will only so long as the restraining hook of the grammar of *Svayambhū* does not fall. Victorious be the lion *Svayambhū* with his long tusks of good words, terrible to look at on account of the nails in the form of the metres and figures of speech, and having ample manes in the form of grammar. Victorious be the lotus-like poem of *Svayambhū* with its stalk of long compounds, its petals of words, its pollens of sense and with its juice being sucked by the 'learned'-bees."

All these verses, from their contents and style, seem to me to have been written by *Tribhuvana Svayambhū*, not necessarily at the time of completing the work, but perhaps at a later date, and then inserted in the manuscripts. That is why they are not found in all MSS. nor at the same place.

From these verses we can gather certain important pieces of information. Firstly, we get names of three poets who obviously wrote *Apabhramśa* poems before or simultaneously with *Svayambhū*. *Caturmukha* has been praised for the excellence of his *Gograhanā-kathā* and for his choice of words. He has also been associated with a work in *Paddhadiā* metre called *Pancamīcaria*. In HP. *Svayambhū* acknowledges his debt to him for the metrical system adopted in his work, that is, the use of *Paddhadiā* metre joined up with *Duvali* and *Dhruvaka* verses. *Danti* has been praised for the charming meaning of his composition, but no work of his has been mentioned. He seems to be identical with *Dantila* mentioned by *Puspadanta* in his *Mahāpurāṇa*.²⁰ *Bhadra* is said to have excelled in the *Gograhanā-kathā* and *Matsya-vedha*. It seems to me that all these poets, like *Svayambhū*, but independently of each other, wrote the *Bhārata* story and the particular sections of their works, as mentioned above, were specially appreciated.²¹

The next important information that we get from the verses is about the other works of *Svayambhū*. Not only his sound knowledge of grammar has been emphasised but he is clearly attributed with the authorship of a

¹⁹ See Appendix 1 (a).

²⁰ See *Alld. Uni. Studies*, Vol. I, p. 165.

²¹ *Dhavala*, a later *Apabhramśa* poet, actually mentions a *Hari-Pāndavakathā* of *Caumuha* which he had consulted, *Alld. Uni. Studies*, Vol. I, p. 166.

grammar, the first grammar of *Apabhramṣa*. Jinasena, in his *Ādipurāṇa*, has mentioned a grammar (*Padaśāstra*) by Svayambhū, consisting of more than a hundred chapters.²² Though Jinasena is here speaking of what Rishabha-deva taught to his sons, nevertheless, it is evident from his mention of *Chandoviciti* and ten *Prāṇas* of poetry, at the same place, that he had in his mind actual works on the subjects. It is, therefore, not improbable that he was conscious at the time of the existence of a grammar by Svayambhū. The *Ādipurāṇa* was completed before A.D. 898. The discovery of this work of Svayambhū would be really valuable. His title of *Chanda-cūḍāmaṇi*, combined with the other references in praise of his knowledge of metrics, seems to suggest that he also wrote some work on metre. A recently discovered work on Prākrit metre *Kavi-darpaṇam*, written before 1300 A.D., makes mention of Svayambhū and quotes his opinion on a controversial point.²³ A MS. of Svayambhū's work on Prākrit metre is actually reported to be in existence.²⁴ He perhaps wrote on *Alamkāra* also as he is mentioned as an authority on rhetorics by *Prakāśavarṣa* in his *Rasārnavaalamkāra* though this reference is of a dubious nature between mythological and historical.²⁵ *Pancami-carīa* was another narrative of Svayambhū. "It was a story of exceeding wonder and was composed in Paddhaḍīa verses," says his son who revised it.²⁶ As already mentioned, Svayambhū wrote one more work *Suddhaya-carīa* just before he began the HP.²⁷ This makes Svayambhū a very versatile genius, very much like the poli-histor Hemacandra who flourished under Kumārapāla of Gujarat during the 12th century. For the rest, the aforesaid verses belaud the work of Tribhuvana Svayambhū in completing the work of his father, including the revision of his *Pancami-carīa*, and praise Bandaiyā and his son for encouraging and supporting the poet in his poetic activities.

We now come to the question of Svayambhū's date which is not mentioned in his works and, so, for which we are thrown upon external and internal evidence. His reputation has been responsible for his being mentioned by many poets of *Apabhramṣa* who followed him. We already know that his work was interpolated by Yaśahkīrtī during the 15th century. Yaśahkīrtī's pupil

²² तदा स्वार्थमुवं नाम पदशास्त्रमभूमहत् ।

यस्तपरः शताध्यायैरतिगम्भीरमधिक्षवत् ॥ आ. पु. पर्व १६, १११.

²³ *Annals of Bhand. Or. Research Inst.*, Vol. XVI, parts I and II, p. 61.

²⁴ *Anit*; See *JBRAS*, 1935, Nos. 1-2, where a part of this work is published.

²⁵ *Indian Historical Quarterly*, Vol. V, No. 1, Supplement, p. 18.

²⁶ See Appendix 2, verses 6 and 8.

²⁷ See Appendix 6, *sandhi* 99.

Simhasena has mentioned him in the Mehesara-cariu as a Mahākavi.²⁸ Vira who probably wrote during the 13th century, speaks of him in his *Jambūsāmī-cariu*²⁹ as peerless in giving delight to the learned by his *Rasa* and *Bhāva*. *Kanakāmara*, in his *Karakānda-cariu*,³⁰ calls him large-minded *Svayambhū*. Above all, *Puṣpadanta* mentions him in his *Mahāpurāṇa* which was completed on Sunday, the 11th June 965 A.D., and this date provides us with a *terminus-a quo* for our poet.³¹

For fixing the other limit, we have to look for evidence into the works of *Svayambhū* himself. In the introductory part of his PC. *Svayambhū* acknowledges his debt to a line of teachers who handed down the Rāma story by tradition, the last of them being *Ravīṣeṇa* whom we know very well as the author of the Jaina *Padma-purāṇa*, also called *Padmacarita*, in Sanskrit, written, according to the author's own statement, in 678 A.D.³² *Svayambhū* goes on to mention *Bharata*, *Piṅgala*, *Bhāmaha* and *Dandin* whose works, he says through modesty, he had not studied. In the same connection, he also speaks of the Five great poems (*Panca-nāhākāvya*) without mentioning them by name.³³ In his HP., however, he says that the knowledge of grammar was bestowed on him by *Indra*, of sentiment (*Rasa*) by *Bharata*, power of exposition by *Vyāsa*, metre by *Piṅgala*, figures of speech (*Alamkāra*) by *Bhāmaha* and *Dandin*, excessive bombasticism (*Ghana-ghanau akkharadambaru*) by *Bāṇa*, poetic skill (*Niupattana*, *Nipuṇatvam*) by *Śrī-Harṣa* and the *Paddhadīa* metre, with its accompaniment of *Duvai* and *Dhruvaka*, by *Caumuha*.³⁴ A knowledge of the times of these authors and works will give us the required limit of time for *Svayambhū*. *Vyāsa* is, no doubt, the author of *Mahābhārata* which had assumed its present shape before 600 A.D.³⁵ *Bharata* is certainly the author of *Nātyasāstra*, a work of ancient fame, believed to be very old, the latest conjecture about its time being the 6th century.³⁶ *Indra* is traditionally associated with the Jainendra Grammar which is really the work of *Pūjyapāda Devanandi*, and which is mentioned

²⁸ *Alld. Uni. Studies*, Vol. I, p. 174.

²⁹ This work is one of my new finds, and has not, so far, been noticed anywhere. It makes mention of *Svayambhū* as follows :—

रस-भावहिं रंजिय-वित्स-मणुः सो मुयवि सर्यंभु अणु कवणु ॥

³⁰ Edited by the writer in Kāranjā Jaina Series, Vol. IV, 1934. It calls *Svayambhū*, *Visālacittu* (विशालचित्त).

³¹ *Alld. Uni. Studies*, Vol. I, p. 185.

³² Edited in Manikandra Digambara Jain Granthamālā, Bombay.

³³ See Appendix I (δ).

³⁴ See Appendix 4.

³⁵ Winteritz, *History of Indian Literature*, Vol. I; Macdonell, *History of Sanskrit Literature*.

³⁶ P. V. Kane's Introduction to his edition of *Sāhitya Darpaṇa*.

by *Jinasena* in his *Harivamśa-purāṇa* of 783 A.D. The work, on good grounds, is assigned to the latter part of the 5th century.³⁷ *Pīngala* is associated with two well-known works, one on Sanskrit metre called *Chandah-sūtra* and the other on Prākrit metre called *Prākrit Pīngala*. The name has come down to us from hoary antiquity and the history of the works is enveloped in mythic darkness and legendary confusion.³⁸ The second work, however, seems to be a compilation of gradual growth and it may have reached its present form not earlier than the 16th century, but its earliest kernel might be assumed to be in existence about 700 A.D. *Bāna* is no other than the famous author of *Hṛṣa-carita* and *Kādambari* to whom our poet is very suitably indebted for high bombasticism. His time is certain beyond doubt as he flourished at the court of emperor *Hṛṣa* who ruled from 606 to 648 A.D. *Bhāmaha* and *Dandin* are both authors of well-known works on *Alamkāra*. They seem to have been contemporaries or separated by a very short period. Their date is uncertain but they are believed to be not later than 700 A.D.³⁹ Svayambhū's mention of *Śri-Hṛṣa* presents some difficulty. As our poet declares himself to be indebted to him for poetic skill, one naturally feels inclined to identify him with the author of *Naiṣadhiya-carita* which is a work of unquestionable poetic excellence. But this work, on the authority of Rājasekharaśūri's *Prabandha-kosa*, is believed to have been written during the 12th century.⁴⁰ If this is true, Svayambhū could not obviously mention him, in which case this *Śri-Hṛṣa* might be identified with *Bāna*'s patron the emperor *Hṛṣa* who is also the author of three Sanskrit dramas. For him, however, the tribute paid by Svayambhū would seem to be too liberal and not as justifiable as his other acknowledgements. It is surprising that *Puspadanta* has also mentioned him in his *Mahāpurāṇa*. Personally, I feel inclined to question the evidence adduced in favour of the 12th century for the author of *Naiṣadhiya*, and place him before Svayambhū and *Puspadanta*. In fact, the date has been questioned more than once before,⁴¹ and the subject deserves to be re-examined in the light of this fresh evidence. By the *Panca-Mahākāvya* Svayambhū might be presumed to mean *Raghuvamśa* and *Kumārasaṃbhava* of *Kālidāsa*, *Kirātārjuniya* of *Bhāravi*, *Śisupālavadha* of *Māgha*, and, either *Bhaṭṭikāvya* or *Naiṣadhiya-carita*. Of these, the first two poets are mentioned in the Aihole inscription of 634 A.D., *Māgha*'s grandfather is known to have been the minister of king *Varmalāta* mentioned in

³⁷ S. K. Belvalkar : *Systems of Sanskrit Grammar*, p. 62 ff.

³⁸ Both works edited in the *Bibliotheca Indica*, Calcutta.

³⁹ P. V. Kane, Introduction to his *Sāhitya Darśana*.

⁴⁰ Pandit Sivadatta, Introduction to his edition of the *Naiṣadhiya-carita*; Keith, *History of Sanskrit Literature*.

⁴¹ Bühler, *J.B.R.A.S.*, X, 31 f; XI, 279 f; R. P. Chanda, *IA.*, XLII, 83 f; 286 f.

an inscription of 625 A.D., and *Bhaṭṭi*, having flourished under a Vallabhi king *Dharasena*, cannot be later than 641 A.D.⁴² It might be said here that Svayambhū's mention of five *mahākāvyas* instead of the traditional six, goes in favour of his *Śri-Harṣa* being identified with the emperor Harṣa and not the author of *Naiṣadhiya-carita* which may not be existent then. As for the *nipuṇatva* of Śri Harṣa, our poet may have had in his mind that verse in *Nāgānandam* which begins as 'Śri Harṣo nipuṇah kavī' etc. Thus, all the poets and works which have been mentioned by Svayambhū and about whose dates we have some evidence, belong to a period preceding 700 A.D. Therefore, the period of Svayambhū's poetic activities falls between 700 and 965 A.D.

If we wish to bring his date within a closer range, we might take into consideration some evidence of a negative character. We have seen that Svayambhū is very honest and sincere in the acknowledgement of his debt to his predecessors. He is very particular in mentioning the sources of his knowledge and information on the subjects of grammar, metre, figures of speech and poetic standards. Though himself a *Chanda-cūḍāmaṇi* he conscientiously confesses that he borrowed the metrical system adopted in his works from *Caumuha*. He also declares that for his story of *Pauma-carī* he is indebted to *Raviṣena*. This being so, it seems strange that he makes no mention of Jinasena and his *Harivamśa-purāṇa* in Sanskrit which has the same subject-matter as his own *Harivamśa-purāṇa*. Jinasena had completed his work, according to his own statement, in 783 A.D. Another noteworthy omission is that of the Sanskrit *Ādipurāṇa* whose author Jinasena II occupies a very high place amongst the Jaina authors. He completed the *Jayadhavalā Siddhānta* in 838 A.D.⁴³ Puṣpadanta has mentioned him and his preceptor, as well as his work, with great respect. Svayambhū would not have failed to mention them, and more particularly the author of *Harivamśa-purāṇa*, if they were known to him; and they could not have remained unknown to him if their works had come into existence before him, for he, like them, belonged to the South as is evident from the name of his patron as well as from the fact that the *Rāṣṭrakūṭa* kingdom was during this period the home for such literary talents. It seems to me one of those cases where silence is strongly suggestive. It may, therefore, be inferred that Svayambhū wrote before the authors of the Sanskrit *Harivamśa-purāṇa* and *Ādipurāṇa*, that is, between 700 and 783 A.D.

In the introductory part of the *Pauma-carī*, there is a verse which just gives us a glimpse into the personality of Svayambhū. He himself

⁴² Keith, *History of Sanskrit Literature*.

⁴³ See Introduction to *Catalogue of Sans. and Prah. MSS. in C.P. and Berar.*

tells us that he was very slender in his body and had scattered teeth.⁴⁴ This reminds us of his successor Puspadanta who calls himself "emaciated in body like the new moon, dark in complexion and purely ugly".⁴⁵ If we cannot appreciate such features in the personality of these poets, we have certainly to admire their courage in leaving for us a permanent record of the same.⁴⁶

APPENDIX.

1. Introductory portion of 'Pauma-cariu'.

(a)

नमह णव-कमल-कोमल-मणहर-वर्नहल-कंति-सोहिलं ।
 उसहस्स पायकमलं समुरासुरवंदियं सिरसा ॥ १ ॥
 चउसुह-मुहाम्मि सहो दंतीसहे य मणहरो अतथो ।
 विणि वि सयंभुक्ष्वे किं कीरइ कइयणो सेसो ॥ २ ॥
 चउसुहएवस्स सहो सयंभुएवस्स मणहरा जीहा ।
 भइस्स य गोगगहणं अज्ञ वि कइणो ण पावंति ॥ ३ ॥
 जलकीलाए सयंभु चउसुह एवंच गोगगहकहाए ।
 भइं च मच्छब्देह अज वि कइणो ण पावंति ॥ ४ ॥
 तावज्जि य सच्छांदो भमह अबडभंस-मच्छ-मायंगो ।
 जाव ण सयंभु-वायरण-अंकुसो पडह ॥ ५ ॥
 सच्छह-वियड-दाढो छंदालकार-णहर-दुष्पिच्छो ।
 वायरण-केसरइदो- सयंभु-पंचाणणो जयउ ॥ ६ ॥
 दीहर-समास-णालं सह-दलं अत्थकेसरउविया ।
 बुह-महुयर-पीयरसं सयंभु-कब्जुप्लं जयउ ॥ ७ ॥

⁴⁴ See Appendix I (b), line 10.

There are two more adjectives in this line describing the poet's personality, but their meaning is not clear to me. One is *Puñhara-gattem* (पूँहर-गत्ते) where the first word is doubtful. We might take it as equivalent to *Pratihara* (प्रतिहर) and then the whole adjective might give us the meaning 'Having repulsive limbs'. But it is rather peculiar to use 'pratihara' in that sense. The other adjective is *Chivvara-nāseṇ* (छिवर-णासे) which is also found in one MS. as *Chivvara-nāṣeṇ* (छिवर-णासे). What does *Chivvara* or *Chivira* mean? Hemacandra gives *Chivira* as equivalent to *kṛtrimā* meaning artificial (छिव्ये करिमम् *Deśināmālā*, III, 27). If our *Chivvara* is derived from this, the adjective would mean 'having an artificial or unusual sort of nose'. Or, it may be equivalent to the Gujarati *chipar* (छिपर) meaning a large stone. The adjective may then mean having a nose resembling a large stone. Or, is it connected with the Sanskrit 'kṣīva' (क्षीव) or 'chavi' (छवि), in which case the adjective may mean 'having an intoxicating or a beautiful nose'? Such are the difficulties which a student of this literature is constantly faced with.

⁴⁵ See Introduction to *Nāyakumāra-cariu*, edited by the writer in Devendrakirti Jaina Series, Vol. I.

⁴⁶ In the Appendix will be found all those extracts from Svayambhu's works, on which all the statements made above are based.

(b)

वद्धमाण-मुह-कुहर-विणिगगय अक्खर-बास-जलोह-मणोहर दीह-समास-पचाहावांकिय देसीभासा-उभय-तडुजल अथवहल-कलोलाणिद्धिय एह रामकह-सरि सोहती पच्छाई हंद भूह-आयरिए पुण एवहिं संसाराराएं पुण रविसेणायारिय-पसाएं पठमिणि-जणणि-गढभसंभूएं अइतणुएण पईहरगते घता—गिम्मल-पुण-पवित्र-कह-कितणु आढप्पइ ।	रामकहा-गइ एह कमागय । सुयलंकार-छंद-मच्छोहर । सक्य-पाथय पुलिणालंकिय । कवि-दुक्कर-धण सहन्सिलायल । आसामय-सम-तूह-परिट्ठिय । गणहर-देवहिं दिदठ वहती । पुण घञ्मेण गुणालंकरिए । कितिहरेण अणुतरवाएं । बुद्धिए अवगाहिय कहराएं । माल्यपू-रुच-अणुराएं । छिब्बर-नासे पविरल-दंतें । 10
---	--

जेण समाणिज्ञतएण धिरकिलि विढप्पइ ॥ ३ ॥	
बुहयण सयंभु पइ विणवह बायरणु कयावि ण जाणियउ	महं सरिसउ अणु णस्थि कुकइ । णउ वित्ति-सुतु बक्खाणियउ ।
णउ पचाहारहो तत्ति किय णउ णिसुणउ सत्त विहत्तियाउ	णउ संधिहे उप्परि बुद्धि ठिय । छविहउ समास-पउत्तियाउ ।
छक्कारय दस-लयार ण सुय ण बलाचल-धाउ-गिवाय-गणु	वासिंवसगग पचय बहुय । णउ लिंगु उणाइ चउक्कु वयणु ।
णउ णिसुणउ पंच महायकम्बु णउ बुजिझउ पिंगल-पत्थारु	णउ भरहु ण लक्खणु छंदु सब्बु । णउ भम्मह दंडियलंकारु ।
ववसाउ तोवि णउ परिहरमि	वरि रयडानुतु कब्बु करमि । 20

2. The ending part of 'Pauma-cariu'.

तिहुयण-सयंभु णवरं एको कहराय-चालिष्यपणो ।
पउमाचरियस्स छ्डामणि व्य सेसं कयं जेण ॥ १ ॥
कहरायस्स विजय-सेसियस्स वित्तारिउ जसो भुवणे ।
तिहुयण-सयंभुणा पउमचरिय-सेसेण णिस्सेसो ॥ २ ॥
तिहुयण-सयंभु धबलस्स को गुणो वाणिउं जए तरह ।
बालेण वि जेण सयंभुकम्बभारो समुच्छूदो ॥ ३ ॥
बायरण-दृढ-कखेधो आगम-अगोपमाण-वियडपओ ।
तिहुयण-सयंभु-धबलो जिणतिस्थे वहउ कम्बभरं ॥ ४ ॥
चउमुह-सयंभुएवाण वाणियरथं अचक्खमाणेण ।
तिहुयण-सयंभु रहयं पचमि-चरियं महच्छरियं ॥ ५ ॥
सञ्च वि सुया पंजर-सुय व्य पढ़ि अक्खराई सिक्खांति ।
कहरायस्स सुओ सुय व्य सुहगब्ब-संभूओ ॥ ६ ॥

तिहुयण-सयंभु जह ण हुंतु णंदणो सिरिसयंभुदेवस्स ।
 कव्यं कुलं कवित्सं तो पच्छा को समुद्रइ ॥ ७ ॥
 जह ण हुउ छंदचूडामणिस्स तिहुयण-सयंभु लहुतणउ ।
 तो पद्धियाकव्यं सिरिपच्चामि को समरेउ ॥ ८ ॥
 सब्बो वि जणो गिणहइ णिय-ताय-विठ्ट-दब्ब-संताण ।
 तिहुयण-सयंभुणा पुण गाहियं ण सुकइत्स-संताण ॥ ९ ॥
 तिहुयण-सयंभुमेकं मोत्तूण सयंभुकव्य-मयरहरो ।
 को तरह गंतुमन्तं मज्जेस णिस्सेस-सीसाण ॥ १० ॥
 इय चारु पोमचरियं सयंभुएवण रहय सम्मतं ।
 तिहुयण-सयंभुणा तं समागियं परिसमत्तमिणं ॥ ११ ॥⁴⁷
 मारुय-सुय-सिरिकहराय-तपाय-कय-पोमचरिय-अबसेसं ।
 संपुण्णं संपुण्णं बंदहओ लहउ संपुण्णं ॥ १२ ॥
 गोइंद-मयण सुयण्णं विरहयं (?) वंदहय-पढमतणयस्स ।
 बच्छलदाएं तिहुयण-सयंभुणा रहयं महप्पयं ॥ १५ ॥
 वंदहय-णाग-सिरिपाल-पहुइ-भव्ययण-समूहस्स ।
 आरोगत्स-समिद्धी संति सुहं होउ सब्बस्स ॥ १६ ॥
 सत्तमहासरगंगो⁴⁸ तिरश्चनभूसा सु रामकह-कणा ।
 तिहुयण-सयंभु जणिया परिणउ बंदहय मणतणउ ॥ १७ ॥
 इय रामायण-पुराणं समतं ।
 सिरि-विजाहर-केंडे संधीओ हुंति बीस परिमाणं ।
 उज्जाकडंमि तहा वावीस मुणह गणणाए ॥
 चउदह सुंदरकेंडे एकाहिय बीस जुज्जसकेंड य ।
 उत्तरकेंडे तेरह संधीओ णवह सब्बाउ ॥ १८ ॥

3. Some important colophons of sandhis in 'Pauma-cariu'.

Sandhi

1. इय इथ पउमचरिए धणंजयासिय-सयंभुएवकए
जिण-जम्मुप्पति पठमं चिय साहियं पब्बं ॥
2. जिणवरपिकखबण इमं बीर्यं चिय साहियं पब्बं ॥
14. जलकीलाए सयंभु चउसुहएवं च गोमाहकहाए ।
भईं च मच्छेबहे अजावि कहणो ण पावंति ॥

⁴⁷ Here follow two verses in Sanskrit in praise of Rāmāyaṇa, obviously imported from Ravisena's *Padmapurāṇa*, Parva 123, verses 155 and 157; one is चेष्टितमयणं चरितं, etc., and the other वाचयति शृणोति जनः, etc.

⁴⁸ According to the following verses we have only five Kāṇḍas and no seven sargas. The writer here seems to have been too full of the seven Kāṇḍas of Vālmiki's Rāmāyaṇa.

Sandhi

42. अउज्ज्ञाकंडं समतं ।
आइच्छुएवि पडिमोवाए (?) आइच्चिमाए ।
बीयउ उज्ज्ञाकंडं सयंभुषरिणीए लेहवियं ॥
77. जुज्ज्ञाकंडं समतं ॥ ऊयेष्ठ वदि १ सोम ।
88. इय पोमचरिय-सेसे सयंभुपृवस्स कहवि डब्बरिए ।
तिहुयण-सयंभु-रइयं समाणियं सीयदीव-पब्बमिणं ॥
बंदहआसिय-तिहुयण-सयंभु-कह-कहिय-पोमचरियस्स ।
सेसे भुवणपगासे तेयासीमो इमो सग्गो ।
कहरायस्स विजयसेसियस्स विरथारिओ जरो भुवणे ।
तिहुयणसयंभुणा पोमचरियस्स सेसेण गिस्ससे ॥
84. इय पउमचरियसेसे सयंभुएवस्सं कहवि उब्बरिए ।
तिहुयण सयंभुरहए सपरियण हली-संभवकहणम् ॥
इय रामएव-चरिए बंदहआसिय-सयंभुस्य-रइए ।
बुहयण-मण-सुह-जणो चउरासीमो इमो सग्गो ॥
85. बंदहआसिय-महकह-सयंभु-लहु-अंगजाच-विणिवद्दो ।
सिरि पोमचरियसेसो पंचासीमो इमो सग्गो ॥
90. इय पोमचरियसेसे सयंभुएवस्स कहवि उब्बरिए ।
तिहुयणसयंभुरहए राहवणिब्बाणपब्बमिणं ॥
बंदहआसिय-तिहुयण-सयंभुपरिविरइयम्मि महाकब्बे ।
पोमचरियस्स सेसे संपुणो शब्दमो सग्गो ॥

4. Some introductory portions of *Harivamsha Purana*.

सिरिपरमागम-णालु सयल-कला-कोमल-दलु ।

करहु विहूसणु कणे जायब-कुरुव-कुलुप्पलु ॥

चितवह सयंभु काइ करम्मि	हरिवंस-महणउ के तरम्मि ।	*
गुरु-बयण-तरहउ लहु नवि	जम्महो वि ण जोहउ को वि कवि ॥	
णउ णाइउ बाहतरि कलउ	एकु वि ण गंथु परिमोक्लउ ।	5
ताहिं अवसरि सरसह धीरवह	करि कब्जु दिण मह विमलमह ।	
इंद्रेण समपित वायरणु	रघु भरहै वासे विस्थरणु ।	
पिंगलेण छंद-पय-पत्थारु	भम्मह-दंडिणिह अलंकार ।	
बाणेण समपित घणघणउ	तं अक्षर-हंवह अप्पणउ ।	
सिरिहरिसे णिय-णिउणिलणउ	अवरेहि मि कहहि कहतणउ ।	10
छंडणिय दुवह-धुवएहिं जडिय	चउसुहेण समपिय पदडिय ।	
जण-णयणाणद्व-जेनरियए	आसासए सञ्चहुकेरियए ।	
पारभिय पुणु हरिवंस-कहा	स-समय-पर-समय-वियार-सहा ।	
अत्ता—पुच्छह मागहणहु, भवजरमरण-भडारा ।		
पिड जिण-सासणु केम, कहि हरिवंस भडारा ॥ ३ ॥		15

5. *The ending part of Harivamśa Purāṇa.*

इह-भारह-पुराण सुपसिद्धउ नामि-चरिय-हरिवंसाइद्धउ ।
 बीरजिगेसे भवियहो आकिलउ पच्छाई गोयमसामिण रकिलउ ।
 सोहम्मे पुण जंबूलामे किंहुकुमारे दिगगयगामे ।
 जंदिमित्त-अवराजियणाहे गोवद्धणेण सुभद्रहचाहे ।
 एम परंपराई अणुलगउ आयारियह मुहाउ आवगगउ । 5
 सुणि संखेवसुतु अवहारिउ विउमें सर्यमें महि वित्थारिउ ।
 पद्धडिया-छोदे सुमणोहरु भवियण-जण-मण-सवण-सुहंकरु ।
 जसपरिसेसिकविहि जं सुण्णउ जं उव्वरिउ किं पि सुणियाणहो ।
 तं जसकित्ति-मुणिहि उद्दरियउ णिएवि सुतु हरिवंसच्छारियउ ।
 णिय-गुरु-सिरि-गुणकिति-पसाएं कित्त परिपुण्णु मणहो अणुराएं । 10
 मरहेसेदेवं (?) सेठि-आएसे कुमर-जयरि आवित्त सविसेसे ।
 गोवगिरिहे समीवि विसालए पणियारहे जिणवर-चेयालए ।
 सावय-जणहो पुरउ वक्खाणिउ दिङु मिन्छत्तु मोहु अवमाणिउ ।
 जं अमुण्णते इह महं साहितु तं सुयेदेवि खमउ अवराहउ ।
 णंदउ सासणु सम्मदणाहहो णंदउ भवियण कय-उच्छाहहो । 15
 णंदउ णरवह पय पालंतहो णंदउ दयधम्मु वि अरहंतहो ।
 कालंविय णिच्च परिसकउ कासु वि धणु कणु दितु ण थकउ ।
 भद्रमासि विणासिय-भवकलि हुउ परिपुण्णु चउद्दसि णिम्मलि ।
 घता—इय चउविह-संघहं, विहुणिय-विश्वहं, णिणासिय-भव-जर-मरणु ।

जसकित्ति-पयासणु, अखलिय-सासणु, पयडउ संति सर्यभुजिणु ॥ १७ ॥ २०

इय रिट्ठणेमिचरिए धवलहयासिय-सर्यभुवकए ।
 तिहुवण-सर्यभु-रहए समाणियि कण्ठकिति हरिवंस ॥
 गुरु-पव्व-वास-मयं सुयणाणाणुकमं जहाजाय ।
 सयमिक्क-दुहह-अहियं संधीओ परिसमस्ताओ ॥ संधि ११३ ॥
 ॥ इति हरिवंशपुराण समाप्ते ॥

6. *Some important colophons of sandhis in Harivamśa Purāṇa.*

Sandhi

1. इय रिट्ठणेमिचरिए धवलहयासिय-सर्यभुवकए ।
 पठमो समुहविजयाहिसेयणमो इमो सगो ॥
99. इय रिट्ठणेमिचरिए धवलहयासिय-सर्यभू-कए कविराजायल (?)
 विनिर्मिते श्री समवसरणकथनं नाम निन्याणबो संधिः ॥
 काउण पोमचारियं सुख्य-चरियं च गुणगणपवियं ।
 हरिवंस-माहहरेण सरस्स सुठिय-देहव्व ॥ ४ ॥
100. इय रिट्ठणेमिचरिए धवलहयासिय-सर्यभुवकए उव्वरिए
 तिहुवण-सर्यभुमहाकह-समाप्तिए समवसरणं णाम सउमो सगो ॥

Sandhi

102. इय..... सयंभु-उव्वरिए तिहुवण-
सयंभु-महाकइ समाणिए कण्ठ-महिल-भवगहणमिणं ॥
तिहुवणो जइ चि ण होतु गंदणो सिरिसयंभुएवस्स ।
कव्य कुलं कवितं तो पच्छा को समुद्रह ॥
106. घता—ते धणा सउणा के चि णरा पालिय-संजमु फेडिय-दुम्मह ।
इभवे जसुकिति पविथरिवि हुंति सयंभुवणाहिवह ॥
इय रिद्ठ..... सयंभुविरहए-णारा॒यणमरण-पव्वमिणं ॥
107. घता—सईंभुयपृण विहतु धणु जिम विलसिजह संत ।
तेम सुहासुह-कम्मडा भुजिजहि णिभंत ॥
इय रिद्ठ..... सयंभुएव-उव्वरिए तिहुवण-सयंभु-रहए समाणियं सोयबलहह ॥
108. घता—पियमायरिहि विराइय महिविकखाइय भूसिय णियजासकिति जणि ।
जिणदिक्खहे कारणे दुक्खणिवारणे देउ सयंभुय धरेवि मणि ॥
इय रिद्ठ..... सयंभुएवउव्वरिए तिहुवणसयंभुरहए हलहर-दिक्खासमं कहियं
जरकुमाररज्ज-लंभो, पंडवधरवास-मोहपरिचायं सयं-अद्धाहियं संधी समाणियं एत्थ
वरकहां ॥
109. इय रिद्ठणेमिपुराणसंगहे धवलहयासियाकय-सयंभुएव-उव्वरिए तिहुवण-सयंभुरहए समाणियं
पंडुसुयहो भवं णवोहिय-सयं संधी ॥
इह जसाकिति-कएणं पव्वसुद्धरण-राय-एककमणं ।
कहरायस्तुव्वरियं पयडतयं अकिलयं जहणा ॥ १ ॥
ते जीवंत य भुवणे सज्जण-गुण-गणहरा य भावत्था ।
पर-कव्य कुलं वितं विहङ्गयं पि जे समुद्रहिं ॥ २ ॥
110. घता—सच्चु सुयंगु णाणु जिण-अकिलउ, भवक्षहंतरि कि पि ण राक्खउ ।
णिय-जसुकिति तिलोए पयासिउ, जिह सयंभु जिणे चिह आहासिउ ॥
इय रिद्ठणेमिचरिए धवलहयासिय-सयंभुव-उव्वरिए ।
तिहुवण-सयंभुकहणा समाणियं दहसयं ॥
एको सयंभुवउसे। तहो पुत्तो णाम तिहुवण-सयंभू ।
को वार्णिउ समथो पिउभरणिव्वहण-एकमणो ॥ ३ ॥
111. घता—तेतीससहसरासे असणं गिष्ठाति माणसे सुच्छं ।
तेतिय पक्खुसासं जसकिति-विहूसिय-सरीरे ॥ ४ ॥
इय रिद्ठणेमिचरिए धवलहयासिय-सयंभुएव उव्वरिए ।
तिहुवण-सयंभुरहए णेमि-णिव्वाण पंडुसुयातज्ञं ॥

GREEK MYTH AND TRAGEDY.

BY BOMAN H. MERTA, B.A. (CANTAB.).

THERE is a striking difference between Aristotle's approach to Greek tragedy and that of modern critics such as Nietzsche. For while Aristotle ignores the religion from which tragedy grew and leads the way of post-renaissance æsthetics, Nietzsche is concerned with the myths of that religion as the sources of tragic impulse and material. His *Birth of Tragedy* is directed to showing : " How closely and necessarily art and the people, myth and custom, tragedy and the state have coalesced in their bases. The ruin of tragedy was at the same time the ruin of myth. Until then the Greeks had been involuntarily compelled immediately to associate all experiences with their myths, indeed they had to comprehend them only through this association ; whereby even the most immediate present necessarily appeared to them ' subspecie æterni ', and in certain sense as timeless. Into this current of the timeless, however, the state as well as art plunged in order to find repose from the burden and eagerness of the moment." According to Nietzsche, Greek tragedy grew from the Dionysian religion, the religion of mystic mass sentiment, in combination with the Olympian or Apollonian religion with its clear plastic imagery and its illusion of individuation ; and it decayed when individualism and rationalism, represented by Euripides, overcame the religious impulses. It follows that the secular " Poetics " represents a period when tragedy is dead.

Prof. Cornford in *From Religion to Philosophy* illustrates the fundamental " coalescence " intuited by Nietzsche between tragedy, myth and the state. He shows how the ritual belonging to the myth was originally intended to supply by magic the needs of the group ; and how Greek religion and philosophy developed from mythical projections of the " Collective consciousness ". Thus Nature, society and the gods were part of the mythical cosmic order ; and as " destiny " and " justice " were at first undifferentiated descriptions of the workings of this order, the myths supplied at once the explanation of the universe and the answer to man's ethical and practical demands.

This implies, however, some qualification to Nietzsche's views. For the " state " in its ritual and its tragedy was far from " plunging " from the " present " into the " timeless ". An Aeschylean tragedy is " teaching " and ritual at once. The forces at work are the forces that mould the

universe. The power of Zeus is invoked by ritual in *The Suppliants* and is active throughout in *Prometheus Bound*. The daemon of Agamemnon is invoked to help Orestes, and the Furies, themselves the representatives of destiny, are the chorus of *The Eumenides*; their conciliation by Athena means both an advance from a relentless and intolerable primitive justice to a rational and humane justice, and a blessing instead of a curse to the homes, crops and herds of Athens. Reconciliation between Zeus and Prometheus means similarly concord between civilization, fate and the gods.

But if it is open to Aeschylus to present such a concord, he does not present it "involuntarily". His religion, like the society in which he writes, is no longer simple and homogeneous. The dramatist is both enabled and forced to interpret his legends for himself, because the Dionysian and Olympian religions are not fused in any logical system of doctrines. And not only do primitive elements remain; the two religions, according to Cornford, are fundamentally incompatible. The Olympian god had originally been "daemon of a natural element". But the system to which he belongs is ruled by destiny and necessity, which assign and relentlessly maintain the separate functions of God and men alike.

Thus the Chorus asks Prometheus :—

"Who then holds the helm that steers necessity?"

Prometheus.—"The Triple Fates and the Remembering Furies."

Chorus.—"Is Zeus then the inferior of them in strength?"

Prometheus.—"At any rate he cannot escape Fate's decree."

Thus any development in the Olympian system would tend further to separate its members—men, god and nature. "In proportion," says Cornford, "as the Olympian god becomes anthropomorphic, he comes to be less and less in touch with his natural religion. The foundation of a Pan-hellenic religion meant that the Olympians left their provinces to go and form a polity of their own on the top of a mountain. Finally, they leave earthly Olympus and vanish into the sky". Nature is "dispeopled" of gods, and by a similar process the god is cut off from man, so that the relations between them are typically the "commercial sacrifice" and a "grudging jealousy". The word *Time*, e.g., which originally meant the office or status of the God came to mean "the honour which we are bound to render him, no longer the service he is bound to render us". Aeschylus, who explicitly disavows a rigid interpretation, is particularly concerned with such a position. Prometheus must rebel against Zeus to liberate mankind.

Dionysus, the mystery god, on the other hand, was originally "the daemon or collective soul of a magical fraternity" representing their power over Nature as a whole. Notions of the unity and temporal continuity of life take the place of departmentalisation. Thus man, god and nature are in constant communion; life and death become complementary, and human suffering can be given a godlike dignity and justification. This explains why Dionysus had to become an Olympian before the Athenians could write tragedy. Aeschylus' Zeus and his "ordered harmony" have been influenced by Dionysus.

"Zeus, whosoe'er he be,
 That be His name for me,
 If He so please—I weigh the world and find
 Same Zeus no other helper, if the mind
 Oppressed so strangely is to lift the burden and go free.
 'Twas he who bade men tread
 The road of sober thought.
 'Twas he whose ordinance decreed
 Mankind must suffer to be taught."—(*Agamemnon*)

Cornford claims that the possibility of communion of man with god made for the vitality of the mystic religion. Dionysus, however, was originally an earth-god and a god of the group-soul. As the individual soul emerges and Dionysus recedes into heaven, problems of the One and the Many, of the body and the soul, emerge also and finally, as in the case of Orphism, over-burden the religion. This suggests a further modification of Nietzsche's view: so far as Greek tragedy is the product of the union of the Dionysian with the Olympian religion, its development and decay are both largely conditioned by their inherent and mutual inconsistencies.

Aeschylus is mainly concerned with the cosmic order, the extension of the social order. Hence the Chorus, which retains some association with the worshippers of ritual, is as prominent in his plays as the individual actors, and even interferes in the action. Hence too the individual is typically represented by the conflict between that order and his personal desires. "I was beforehand aware of all this" says Prometheus, "Of will I erred, I will not deny it; succouring man, I got me sufferings myself." Man's disturbing will reveals apparent contradictions in the order, intolerably painful for those who have to bear the consequences; and Aeschylus sees his characters pre-eminently in this light, e.g., Agamemnon.

But a further problem is generally raised, that of the ultimate origin of, and hence responsibility for, the disturbance. Thus Zeus in *Prometheus*

Bound is in one aspect an ungrateful and irresponsible tyrant, and Clytemnestra's motives in "Agamemnon" are bound up with the rape of Helen and the sacrifice of Iphigeneia. When some of the Danaides call on Zeus to preserve their virginity, they are warned by others that the ways of Zeus are obscure. Against such obscurity the particular individual sin that starts the action in the theatre, and the particular human suffering involved, stand out in clear relief. As the perspective alters, they are seen to be inevitable and even needful as parts of the order which ultimately resolve the contradiction. "Mankind must suffer to be taught."

At some points, however, it is the mysterious suffering which is emphasised; "Never shall the devices of mankind transgress the ordered harmony of Zeus," says the Chorus in *Prometheus Bound*, and immediately the pathetic and innocent Io enters half-maddened by her god-inflicted pains. Io is to be ancestress of Prometheus' deliverer, but the alternatives he proposes to her are significant of the cost at which the moral order is asserted: "Choose whether I shall explain to thee the remainder of thy toils or thy deliverer." The figure of Clytemnestra is composed of contradictions: if she is adulterous, so is Agamemnon; if she murders her husband, he has slaughtered their child; if she defies the moral law, he has spoiled the gods' temples in Troy; if he is a great King, she is a long-suffering woman. She is given a positive value, not only through the result of her son's trial, but because her action is partly justified, because the memory of her wrongs and her anticipation of revenge are positive human emotions. Her speeches are profoundly equivocal:—

" If I slept
I dreamt of you, and woke at sudden stir
Of the thin-piping gnat from sounds of woe
Too many, for the time slept with me."

"Let Justice lead him to a home scarce hoped for" she says at the end of this speech of welcome to her husband. But Clytemnestra is overwhelmed in her sin, and the pathetic Cassandra sums up Aeschylus' attitude to individual suffering:—

" Alas for mortal lives—their happiness
A shadow picture; their unhappiness
A sketch, by a wet sponge at a touch dashed out.
And this I pity more than that, far more."

The action of Sophocles is also developed in terms of myth; his plots turn on the worship of the dead, on the fulfilment of the oracles. But his theology is oriented by his reaction to human destiny as such. His gods, his

ethical standards, his cosmic order, are not presented in evolution ; they are fixed, and wisdom has no power to justify or to alter them. Against Aeschylus' "Mankind must suffer to be taught" may be set typical speeches of Teiresias as he enters in *Oedipus Tyrannus*—"Alas how dreadful to have wisdom where it profits not the wise". His choruses are given an extra personal insight ; they are orthodox, but their utterances are those of men for whom the gods must be worshipped not understood. When Jocasta tells Oedipus that, as her child must have died of exposure, he could not possibly have killed Laius as the oracle had foretold, so that there is no need to attend to Apollo's Seer, when in turn he accuses Oedipus of having killed him, the Chorus expresses alarm and dismay : "The old prophecies concerning Laius are fading ; already men are setting them at nought, and nowhere is Apollo glorified with honour ; the worship of the gods is perishing". Yet the very facts Jocasta cites to comfort Oedipus lead to the discovery of the terrible truth.

Mortals are helpless in their fatal insecurity. The more Jocasta struggles to maintain her happiness and that of Oedipus, the more surely are both entangled in the net : "What should mortal fear" she asks, "for whom the decrees of Fortune are supreme, and who hath clear foresight of nothing?" But when her delusions have been broken down, she has no way out but suicide. "Ill-fated one! May'st thou never come to know who thou art."

The individual or the community is thus isolated by fate, whose process is no longer explicable, as it was for Aeschylus, in terms of ultimate purpose on the part of the gods. The process to be endurable must itself compensate man for his mortality. Sophocles' gods are irretrievably Olympian ; his "metaphysical comfort," in Nietzsche's phrase, is mainly Dionysian in origin.

When Creon sends the guard to arrest whoever has tried to bury Polynices, the Chorus of *Antigone* sings of man's achievement and power. He controls the land and the sea and the beasts ; he has the power of thought and statecraft : "He hath resource for all ; without resources he meets nothing that must come ; only against Death shall he call for aid in vain." The dead are not reborn, nor do their ghosts walk the theatre ; but death is very powerful in Sophocles' plays. The death of Laius lies behind *Oedipus Tyrannus* ; the death of Nessus, behind *Trachinia* ; the death of Achilles behind *Ajax* ; the death of Agamemnon and Polynices behind *Electra* and *Antigone*. In all these plays a leading character dies ; and much of the action consists of the after-effects of his death ; the second half of the *Ajax*, e.g., is simply a debate on the

honour due to the dead. The death-complex has no supernatural consequences ; but, in a sense that appears to come from mysticism, the dead may be said to be alive, life may be said to be found in death. Antigone animated by love and piety risks death to bury Polynices : " I owe a longer allegiance to the dead than to the living : in that world I shall abide for ever." She is doomed to " go living to the vaults of death " : " the Lord of Acheron's unlovely shore shall be mine only husband evermore ". " But if I am to die before my time," she says, " I count that a gain. For when anyone lives, as I do, compassed about with evils, can such a one find ought but gain in death ? ". And it is because Creon, when he is forced by fate to repent, stops to bury Polynices himself, that Antigone and Haemon finally die in the cave. But when Antigone expresses to the Chorus her fear of the imprisonment in the cave, like that which tortured a goddess, the Chorus replies " Yet she was a goddess, thou knowest, and born of gods : we are mortals and of mortal race. But 'tis great renown for a woman who hath perished that she should have shared the doom of the godlike in her life, and afterward in death."

This mysticism, though not formulated as a Dionysian doctrine, is nearly omnipresent in Sophocles. Electra is ennobled by love for her dead father, and the emotional climax of the play occurs when Orestes (whom she believed dead) is restored to her. Ajax-alive is a madman, but dead, he is a hero. Hercules, who has been promised rest by the Oracle, discovers that his rest is death ; but he ends in apotheosis. Thus man is glorified by what most belittles him ; and Sophocles is profoundly concerned with the ambivalence of mortality, with the helplessness of heroism and wisdom, with the godlike glory of death. It is this preoccupation which motivates his famous " tragic irony ".

In " Oedipus at Colonus ", Oedipus is received in peace by the gods who have tortured him. The Oracle which doomed his life declares that his death will be a blessing to the land. So Polynices comes to ask for his blessing before marching with his army against Thebes. Instead, his father curses him and prophesies his death. Yet Polynices cannot withdraw, and dare not forewarn his army of their fate, for that would mean a life of disgrace. Antigone pleads with him, but he insists on going to die. " For mine it shall be to tread yon path, with evil doom and omen from this my sire and from his Furies ; but for you twain, may Zeus make your path bright, if ye do my wishes when I am dead." This is said to Antigone who is to die for burying him. Polynices' courage is the counterpart of Jocasta's recklessness ; but though he faces his own fate he is unaware of its consequences. Like Jocasta he lives and dies for his standard of

happiness ; and " it rests with Fortune—that end or another ". The Chorus laments his lot ; but "'tis not mine to say that a decree of heaven is ever vain ; watchful, aye, watchful of those decrees in Time, overthrowing fortunes and on the morrow lifting others again to honour—Hark that sound in the sky ". " That sound " is the thunder summoning Oedipus to his own miraculous death. Theseus returns from the death scene to comfort Oedipus' weeping daughters : " Weep no more maidens ; for where the kindness of the dark powers is an abiding grace to the quick and to the dead, there is no room for mourning ; divine anger would follow."

Perhaps the Chorus' quasi-Dionysian notion of Time, rather than Theseus' fear of divine anger, explains why Sophocles turns neither to a despairing fatalism nor to the mystic cults of Orphism or Pythagoreanism. Oedipus begs Theseus to shelter him from his kinsman even at the cost of war. " And how should bitterness come between them and me ? " asks Theseus. " Kind son of Aegeus, to the gods alone comes never old age or death, but all else is confounded by all-mastering time. Earth's strength decays and the strength of the body ; faith dies, distrust is born ; and the same spirit is never steadfast among friends or betwixt city and city, for be it soon or be it late, men find sweet turn to bitter and then once more to love." Ajax pretends to repent of suicide : " All things the long and countless years first draw from darkness, then bury from light ; and there is nothing for which man may not look ; the dread oath is vanquished and the stubborn will....Dread things and things most potent bow to office ; thus it is that snow-strewn winter gives place to fruitful summer." This is for Sophocles the primary fact. Heraclitus regarded as " justice " the " injustice " by which the elements rob each other to compose individuals ; for otherwise life could not exist. Similarly Sophocles regards life and death, man's mortality and his glory, as complementary states, inconceivable in isolation, which alternate in time. His protagonists are not heroes by facing an extraordinary fate with extraordinary nobility ; their nobility is a function of Sophocles' sense of inevitability, which operates for human life from within as well as without.

'On this basis of belief the complexity of human life as he sees it is itself sufficient to provide a framework for tragedy. Sophocles' combination of the Dionysian and the Olympian theology satisfies his feeling of reality, and he accepts the myths on those terms as adequate symbolic accounts of it.'

But a further step in differentiation between human reality and the mythical divine would make for instability. While Sophocles is concerned with the typical human situation, his philosophy provides for a satisfactory

release from suffering ; but when, as in *Philoctetes*, the fate of the individual is the result, not of the workings of an abstract destiny which itself enables Antigone to face a Creon, nor of the impartial decrees of symbolic gods, but of the exclusive human action of society, then the position becomes excessively painful and it has to be relieved by the *deus ex machina*. This takes him towards the position of Euripides.

In a sense, the world of Euripides is the logical outcome of Olympianism : on one side is the mass of humanity in its "depeopled" Nature ; on the other, the selfish gods, caring for their own "honours". Artemis is powerless to save her devotee, Hippolytus, and Poseidon is powerless to save Troy ; but Kypris can ruin Hippolytus and Phaedra and Poseidon and Athena together can raise a storm for the Greeks leaving the burning city. Apollo rapes Creusa as might any grand seigneur, and Athena who brings about the denouement of *Ion* can only evade the issues raised. When Ion first hears of the rape, he prays to Apollo in astonishment :—

" Being strong, be righteous !
 How were it just that ye should enact
 For men laws and yourselves work lawlessness ?
Unjust it were
 To call men vile, if we but imitate
 What gods deem good—they are vile who teach us thus."

"Oh ! that men's curses could but strike the Gods" cries the dying Hippolytus ; and Artemis' only comfort is the promise of revenge on Kypris' "mortal minion".

But Euripides' attitude, as conveyed in the last words of Ion's prayer is of revolt against beliefs rather than the gods. The gods in his plays perform several functions. Like Kypris in *Hippolytus* they symbolise forces at work in human life itself, while at the same time they are so presented that belief in them as personal beings becomes an act of superstitious fear. They are irresponsible or worse :

" Why from mood to mood thus leapest thou
 In random sort bestowing hate and love ?"

Poseidon asks Athena. The Chorus in *Electra* are frankly incredulous of the legend that Zeus turned back the sun at the feast of Thyestes : it is told, they say, to keep us in fearful obeisance to the "gods". But while he attacks these cardinal beliefs, Euripides exploits them for emotional purposes. In the case of "tales about the gods" he both behaves like Aristotle's hypothetical apologist—"this is how men say the thing is", and censures men for saying so. The Olympian scheme is quite incapable of

supplying a myth ; as symbolism or as superstition, it is itself a part of human unhappiness and frustration.

A new typical problem is raised in Jason's uneasy reply to Medea's charge of betrayal. Medea has claimed that she ventured her life to gain him the Golden Fleece and bring him safely home.

" I—for thy kindness tower-high thou pilest—
Deem Kypris saviour of my voyaging :
She and none other or of gods, or men.
Thou art subtle of wit—nay but ungenerous
It were to tell how love, by strong compulsion
Of shafts unerring, made thee save my life."

If " Kypris " is merely a symbol, then the mysterious destiny of Jason and Medea is in no way explained ; Medea cannot be distinguished from her sexuality. But if " Kypris " is a goddess and Medea her puppet, the tragedy becomes a senseless torture. Hence Euripides' " unhappy endings " had to be defended by Aristotle.

The collapse of the old cosmic order follows in any case from changes in experience and sensibility. Being exclusively concerned with life on earth, Euripides sees division or conflict everywhere—between nation and nation, rich and poor, master and slave, native and alien, men and women, between men's needs and their myths of divinity. Many of his plays are plays of social criticism: *Troades* and *Hecuba* deal with the victims, the final results of a war ; the story of *Electra* becomes a story of the revenge of the dispossessed. The ' Justice ' that obtains in such plays is plainly unsatisfactory. Orestes is horrified when he has murdered his mother and Castor, who speaks for Apollo, is uneasy himself about the morality of the act. In *Troades* when the herald has taken Astyanax to be killed Menelaus enters before the pathetic Hecuba. He has come from Helen ; and the man and the woman for whom the war was fought are shown as an angry cuckold and a selfish wanton. When Menelaus says he intends to kill Helen, Hecuba cries out :—

" O Earth's Upbearer, thou whose throne is Earth,
Whosoe'er thou be, O past our finding out,
Zeus, be thou Nature's Law or Mind of Men,
Thee I invoke ; for treading soundless paths
To justice's goal thou bring'st all mortal things."

The whole play may be regarded as a bitterly ironic presentation of such ' Justice '.

Sophocles' adjustment has become as inadequate as that of Aeschylus. Since the individual and his sufferings are themselves ultimate, the typical Sophoclean human situation becomes "mythical" for Euripides. The sense of social solidarity has gone; Euripides' individuals, like Medea or Hecuba, are largely victims of social forces. Consequently, as with Medea or Phædra, the individual's best or strongest feelings replace as standards the judgments of orthodox society. But Euripides cannot rest satisfied with this; several of his characters express a longing for escape:—

"Under the arched cliffs O were I lying,

That there to a bird might a god change me!" (*Hippolytus*)

sings the Chorus when Phædra goes to commit suicide. And

"Oh! to flee on the wings of a bird

Through the ocean of air,"

cries Creusa, when she learns that the God has doubly deceived her. The nurse in "*Medea*" wishes for songs to "breathe peace" on the "dread doom of mortals, the anguish heart-rending"; and it is significant in this connection that Euripides is regarded as the father of romantic-comedy and tragi-comedy.

Perhaps the song of bewilderment at the ways of the gods, which the Chorus sings at the end of *Medea* and other plays, may be taken with such speeches as that of Hecuba in *Troades* as desiderating or pointing to a new myth. The innovation in the plot of *Electra* suggests one of the lines on which Euripides is seeking it: Orestes finds his sister married by her mother to a noble-hearted peasant, who has refrained from making her his wife in fact; and there is much moralising on the inadequacy of wealth. "Nature's inborn courage," the peasant's simple generosity, become the standard of human value; as innocent suffering becomes a standard in the earlier plays. But since "Nature" tends to be identified with what society neglects, wounds or represses, such a myth cannot become a satisfactory basis for the tragedy of an official Athenian festival.

Olympianism has brought Euripides to a world comparable to that of Anaxagoras, whose pupil he is said to have been. It is a world of atoms set in motion by "Nous". And the complaint Socrates makes of the master in *Phædo*, he might equally well have made of the pupil; such a system is quite incapable of showing that everything happens for a purpose—it allows no ultimate Good. Nor can Dionysus provide Euripides with a solution; he has become in the *Bacchæ* the son of Zeus who can do no more than confer on his worshippers supernatural power; and

the speeches and acts of his worshippers reveal Euripides' impasse. Teiresias would not

" Reason touching Gods—
Traditions of our fathers old as time."

The Chorus of Bacchanals long for escape from strife, the vanity of life's struggle and presumptuous reasoning :

" Little it costs, faith's precious heritage,
To trust that whatsoe'er from Heaven is sent
Hath sovereign sway, whate'er through age on age
Hath gathered sanction by our nature's bent."

But their saviour, Dionysus, though born of woman and releasing man's stifled " nature ", is by virtue of that very fact the Chorus' " sanction ": he cruelly punishes the Theban royal family for their original unbelief. The human " naturalness " which draws his worshippers, and gives them sympathetic powers over nature, is not " Naturalness " of the primitive nature-as-a-whole. He is orgiastic, fanatical, cruel. The Chorus applies the same images—those of the lion and the dragon—to Dionysus and Pentheus alike. Yet the cousins are antagonistic ; and when Pentheus, the representative of social order, is maddened by Dionysus, he meets the fate of Actaeon. Fundamentally, then, Dionysus and Pentheus are one ; so that " nature " in this play is either abnormal, supernatural, irrational, or else an order that can only be maintained by division and internal strife. "The ruin of tragedy was at the same time the ruin of myth "; but it was " the ruin of myth " which brought about the ruin of Aeschylean tragedy ; and it was through that tragedy itself that the myths were destroyed which had given it birth.

NOTE ON THE ORIGIN OF PĀLI.

BY DR. H. C. SETH, M.A., PH.D. (LONDON).

IN a paper on the origin of the Maurya dynasty, which is published in Vol. XVIII, Part II of the *Annals of the Bhandarkar Oriental Research Institute*, I have suggested that Chandragupta originally belonged to Gandhara and was identical with Çāçigupta. The north-west origin of the Maurya dynasty may throw some valuable light on the origin of Pāli.

Scholars of older Indian languages are generally of the opinion that Pāli is a mixed dialect, and there is an undeniable influence on it of the Western Prākrits. As Keith puts it "There is abundant evidence to allow us to connect Pāli with the Western dialects rather than with the Eastern, so that we can with fair confidence accept the view that Pāli is rather Western than Eastern, and that neither Māgadhi nor Ardha-māgadhi is, strictly speaking, the basis of the dialect."¹ Grierson and Kouow even suggest that there is a very close relationship between Paiśaci and Pāli.

Grierson on very strong grounds puts the north-west as the home of Paiśaci. He remarks "there was once a tribe or group of tribes in the extreme north-west of India, to which was given the name 'Piśaca' by those who lived farther to the East; these people spoke a language called by the Prākrit grammarians 'Paiśaci Prākrit'; and traces of that particular Prākrit are still to be found in considerable numbers in the languages spoken on the North-Western Frontier at the present day. While I admit that it is probable that these Piśacas spread down the Indus into Rajputana and along the Konkan Coast, I maintain that the nidus in India from which they spread was the North-West, and that, though they may have carried their language with them, this North-West was its proper home."²

Grierson sums up his views as follows :—

- "1. Literary Pāli is a mixed dialect based upon Māgadhi.
2. It is closely connected with Paiśaci Prākrit.
3. Standard Paiśaci Prākrit was spoken in, and was certainly the local dialect of, Kekaya and Eastern Gandhara, lying in the extreme north-west of India."³

¹ *Indian Historical Quarterly*, Vol. I, p. 514.

² R. G. Bhandarkar Commemoration Volume, p. 120.

³ R. G. Bhandarkar Commemoration Volume, p. 122.

Grierson offers the following explanation of the influence of Pañcāci on Pāli :—‘ From very ancient times the greater Kekaya,⁴ was famous for its learning. When we consider the undoubted fact that Pañcāci Prākrit was the vernacular language of the country round Takṣaśilā, and that it is closely connected with Pāli, we have a strong reason for concluding that literary Pāli is the literary form of the Māgadhi language, the then *koine* of India, as it was spoken and as it was used as a medium of literary instruction in the Takṣaśila University.’⁵

Now, there is no evidence that instruction at Takṣaśilā was given in a literary Māgadhi in those early centuries as supposed by Grierson. There are stronger reasons to assume that Sanskrit was then used as a medium of literary instruction.

In view of my suggestion of the north-west origin of the Maurya dynasty in the paper referred to above, the following origin of Pāli may be suggested :—The whole of Northern India was brought under a common rule for the first time under Chandragupta Maurya. This may have brought about a very strong tendency towards the evolution of a dialect which could be understood by the people both of Eastern and Western India. This evolving *lingua franca* must have been greatly influenced by the dialect of the north-west, as Chandragupta himself, and certainly the forces, with the help of which he conquered Magadha, came from the north-west. We learn from the drama *Mudrārākṣasa* (Act. II) that Śakas, Yavanas, Kirātās, Kambōjas, Pārsikas, Vāhlikas were some of the people with whose help Chandragupta overthrew the Nandas. All of these people were unmistakably from the north-west. By the time of Aśoka’s reign this mixed dialect or Pāli was perhaps most widely understood throughout the whole country. A similar linguistic fusion took place under very much similar political conditions several centuries later in case of the Urdu. It was in this mixed dialect or Pāli that Buddha’s teachings were carried to Ceylon in Aśoka’s time by his own son and daughter (or brother and sister according to another tradition) and have come down to us as a literary fossil embedded in the rock of time.

⁴ According to Grierson Kekaya lay in the extreme north-west of India, and in greater Kekaya he also includes that part of Gandhara which lay to the east of the Indus.

⁵ R. G. Bhandarkar Commemoration Volume, p. 123.

THE LAW OF POPULATION AND THE LAW OF PRODUCE.

BY DR. H. C. SETH, M.A., PH.D. (LONDON).

THE possibility of a conflict between the increase of population and prosperity was noticed by many writers even before Malthus. Robert Wallace in his work *Various Prospects of Mankind and Providence*, published in 1761, examined the effectiveness of a communistic organisation of society in removing the evils to which mankind was subjected. He found an insurmountable difficulty in the quick growth of numbers. The population may increase beyond the capacity of the earth to maintain it. The same difficulty from the overpopulation of the world was seen even by Condorcet, Godwin and other believers in the perfectibility of man. But all these writers, including Wallace, believed that this difficulty would arise at some distant date, and not till the whole earth had been cultivated like a garden and was incapable of any further increase of production. As Godwin remarks, "Myriads of centuries of still increasing population may pass away, and the earth be still found sufficient for the subsistence of its inhabitants."¹

Malthus thought that all these writers erred in imagining that this difficulty would arise only at some distant date. According to him the difficulty of an overcharged population is always present. As he remarks, "An event at such a distant date might fairly be left to Providence; but the truth is that, if the view of the argument given in the essay be just, the difficulty, so far from being remote, would be imminent and immediate. At every period during the progress of cultivation, from the present moment to the time when the whole earth was become like a garden, the distress for want of food would be constantly pressing on all mankind if they were equal."² "And that instead of myriads of centuries, it is really not thirty years, or even thirty days, distant from us."³ This idea of Malthus, that the difficulty of an overcharged population is a perpetual one, is based on his belief in the geometric and arithmetic rates of increase of population and food respectively. Though it is true that the exact mathematical form in which he expressed them may not be strictly true and he himself never insisted on this point yet the disproportion between these two rates became a cardinal article of faith with him.

¹ Quoted Malthus, *Essay*, 1798 edition, p. 180.

² *Essay*, 1798 edition, p. 143.

³ Malthus, *Essay*, 1798 edition, p. 250.

Malthus' assumption of this proportionately low rate of the increase of food was based on his belief in the law of diminishing returns, to which the produce from the earth was supposed to be subject. Malthus did not make any very precise statement of this law in his *Essay*, but there is no mistaking the fact that it runs as an undercurrent throughout his whole work.⁴

The conception of the law of diminishing returns, or increasing cost, took a more definite shape in connection with the discussions on the nature of rent. Malthus himself words it more precisely in his pamphlet, *Nature and Progress of Rent* (published in 1815). "The quantity of labour and capital necessary to produce the last addition that has been made to the raw produce of a rich and advancing country is almost constantly increasing." Ricardo states the same fact even more clearly. "It is probable that under the most favourable circumstances the power of production is still greater than that of population. It will not long continue so; for the land being limited in quantity, and differing in quality, with every increased portion of capital employed on it, there will be a decreased rate of production."⁵

West refers to the same phenomenon even more unequivocally: "In the progress of the improvement of cultivation, the raising of rude produce becomes progressively more expensive.... Each equal additional quantity of work bestowed on agriculture yields an actually diminished return; and, of course, if each equal additional quantity of work yields an actually diminished return, the whole of the work bestowed on agriculture in the progress of improvement yields an actually diminished proportionate return."⁶ This belief in the law of diminishing returns applicable to the produce obtained from the earth provided a sort of scientific explanation for the chronic scarcity of food that an increasing population will always have to face.

Malthus, Ricardo and West did not notice any evidence of the diminished rate of production in other fields of human industry. They could not forget the great lesson taught by Adam Smith, that the increased division of labour and the use of machinery which it facilitates causes "the great multiplication of the production of all the different arts, which occasion, in a well-governed society, that universal opulence which extends itself to the lowest ranks of people".⁷ They, therefore, believed that, while manufacturing industry

⁴ "It must be evident to those who have the slightest acquaintance with agricultural subjects, that in proportion as cultivation extended, the additions that could yearly be made to the former average produce must be gradually and regularly diminishing." (P. 5. 179, Eighth edition, Reeves and Turner, 1828.)

⁵ *Principles of Political Economy*, p. 76, G. Bell and Sons, London, 1919.

⁶ *An Essay on the Application of Capital to Land, etc.*, by Hon. Sir Edward West, 1815. (Quoted, Palgrave Dict., III Vol. p. 663.)

⁷ *Wealth of Nations*, p. 18, Edited by Canan, II edition.

may be able to take advantage of these forces and its product may be subject to increasing return, agriculture will ever remain subject to a tendency of diminishing returns. From this it was not difficult to conclude that all other requirements of life could be easily produced in larger quantities as required by the increasing population, but the production of food was strictly limited. As Malthus remarked, "It should be remembered always that there is an essential difference between food and those wrought commodities, the raw-materials of which are in great plenty. A demand for these last will not fail to create them in as great a quantity as they are wanted. The demand for food has by no means the same creative power."⁸ Ricardo also held this belief that "The natural price of all commodities excepting raw produce has a tendency to fall in the progress of wealth and population."⁹

Thus Malthus, Ricardo and West gave the law of diminishing returns a historical continuity. Once the cultivation of land had reached, in some dim past, a certain stage of development further investments of labour and capital gave proportionately less returns. It was tacitly assumed by them that no radical change would be effected in agricultural productivity by improvements in the science and art of production.¹⁰ The explanation of this belief of theirs lies in the fact that they generalised too hastily from the agricultural experience of their time.

The validity of the law of diminishing returns, as stated by these classical economists, was questioned by many writers soon after it was formulated. Richard Jones maintained the view that improved methods of cultivation brought proportionately more produce. "As the national agriculture becomes in the progress of ages more complete and scientific, may not the increased labour and capital used be requited at least as amply as the smaller quantity before employed, under a more ignorant or indolent system? Must every additional 10 bushels of corn necessarily be obtained by a larger comparative outlay? Is there really a law of nature which makes this result inevitable? Surely it is neither impossible nor improbable that the earth, under an improving system of husbandry, may disclose powers of rewarding as bountifully the skilful and efficient industry bestowed upon her, as she did the languid

⁸ *Essay*, 1798 edition, p. 90.

⁹ *Principles of Economics*, p. 71.

¹⁰ Cf. The views of Robbins:

"The great error of the Ricardians consisted in regarding the so-called 'Law' as stating something which actually took place in time.....

....It was not a mere statement of what might happen, it was a statement of what did happen, and what happened throughout the course of history.....They elevated, that is to say, what is properly a law of static economics into a law of dynamic or historical development." (*London Essays on Economics*, p. 107.)

and ignorant operation of a less laborious cultivation. There is an indefinite point, no doubt, beyond which agricultural production cannot be forced without a loss, but we must not therefore conclude that man with increasing knowledge and means cannot advance from his rudest essays towards this indefinite point, without sustaining at each step a loss of productive power ; and that he who extracts 40 bushels of wheat from an acre is necessarily worse paid than he who extracts 30, and he who extracts 30, worse than he who extracts 10.".....

...."We may regard, therefore as fanciful the doctrine of Mr. Ricardo and his school, when they would teach us that "with every increased portion of capital employed upon the land there will be a decreased rate of production."¹¹

Chalmers also showed that the bringing of new land into cultivation did not necessarily imply an actual diminution of return. Changes in human knowledge and improvements in cultivation may make the new land even more productive than the old.¹²

The more orthodox of the English Economists like James Mill¹³ and M'Culloch¹⁴ shared the belief of Malthus, Ricardo and West in the historic continuity of diminution of returns from agriculture, with only slight and temporary interruptions due to improvements. But John Stuart Mill recognised the validity of the objections raised by Jones and Chalmers. He gave up the belief in the historic continuity of the law of diminishing returns, and stated the law in such a way as to include the possibility of proportionately larger returns being obtained by the increase of knowledge and improvements in the methods of production. He therefore words the law of diminishing returns as follows : " After a certain not very advanced stage in the progress of agriculture, it is the law of production from the land, that in any given stage of agricultural skill and knowledge, by increasing the labour the produce is not increased in an equal degree, doubling the labour does not double the produce ; or, to express the same thing in other words, every increase of produce is obtained by a more than proportional increase in the

¹¹ *An Essay on the Distribution of Wealth, and on the Sources of Taxation*, 1831, p. 201.

¹² *Political Economy*, 1832, by D. T. Chalmers.

The American economist Carey, drawing on the actual experience of his country, also held the view that with the advance of the community the rate of return from land rises instead of falls, as in the actual progress of society the cultivation extends from poorer to more fertile lands ; which yield not only absolutely, but even proportionately to labour employed on them, much larger produce.—(*Principles of Political Economy*.)

¹³ *Elements of Political Economy*, 1821.

¹⁴ *Principles of Political Economy*, 1825.

application of labour to the land."¹⁵ By introducing the idea "in any given stage of agricultural skill and knowledge", in the statement of the law, Mill clearly suggests that increase in agricultural skill and knowledge may yield proportionately larger produce. To Mill, who witnessed some remarkable changes in agriculture in his own country, such increases in the produce of land were not only dreams but actualities. As he remarked, "In England and Scotland agricultural skill has of late increased considerably faster than population, in so much that food and other agricultural produce, notwithstanding the increase of people, can be grown at less cost than they were thirty years ago."¹⁶

While discussing the forces that bring down the cost of production in agriculture Mill comes very near to denying completely the historical applicability of the law of diminishing returns to land and to holding the view that all the forces that increase the productivity of manufacturing industry also increase the productivity of agriculture and make possible the production of raw materials at a proportionately diminishing cost. With his usual penetrating insight he examines these forces : "Of these the most obvious is the progress of agricultural knowledge, skill and invention. Improved processes of agriculture are of two kinds : some enable the land to yield a greater absolute produce, without an equivalent increase of labour ; others have not the power of increasing the produce, but have that of diminishing the labour and expense by which it is obtained. Analogous in effect to this second class of agricultural improvements are improved means of communication. Good roads are equivalent to good tools....that the labour of cultivation itself is diminished by whatever lessens the cost of bringing manure from a distance, or facilitates the many operations of transport from place to place which occur within the bounds of the farm. Railways and canals are virtually a diminution of the cost of production of all things sent to market by them ; and literally so of all those, the appliances and aids for producing which, they serve to transmit."

"Many purely mechanical improvements, which have apparently at least no peculiar connection with agriculture, nevertheless enable a given amount of food to be obtained with a smaller expenditure of labour. A great improvement in the process of smelting iron would tend to cheapen agricultural implements, diminish the cost of rail roads, of waggons and carts, ships and perhaps buildings, and many other things to which iron is not at

¹⁵ *Principles*, Bk. I, Chapter XIII, Sec. 2.

¹⁶ *Principles*, Bk. IV, Chapter II, Sec. 3.

present applied, because it is too costly and could thence diminish the cost of production."

"There are also engineering inventions which facilitate all great operations on earth's surface. An improvement in the art of taking levels is of importance to draining, not to mention canal and railway making. Where canals of irrigation, or where tanks or embankments are necessary mechanical skill is a great resource for cheapening production." Mill in summing up these observations remarks "There is thus no possible improvement in the arts of production which does not in one or another mode exercise an antagonistic influence to the law of diminishing return to agricultural labour. Nor is it only industrial improvements which have this effect. Improvements in Government, and almost every kind of moral and social advancement, operate in the same manner....No improvements operate more directly upon the productiveness of labour than those in the tenure of farms, and in the laws relating to landed property. The breaking up of entails, the cheapening of the transfer of property, and whatever else promoted to the natural tendency of land in a system of freedom to pass out of hands which can make little of it into those which can make more; the substitution of long leases for tenancy at will...., above all, the acquisition of a permanent interest in the soil by the cultivators of it; all these things are as real, and some of them as great, improvements in production as the invention of the spinning jenny or the steam engine."¹⁷

From a writer holding the above views it would be expected that he would maintain that the very same forces that reduce the cost of production in manufacturing industry also reduce the cost in agriculture, and these two great departments of human industry are not subjected to conflicting laws of production. But Mill was too much bound down to Malthus-Ricardian traditions of thought. Though he gives the greatest lie to the law of diminishing returns as understood by earlier writers, yet he clings to it with a certain amount of imbecility which does not do credit to his great intellect. He bridges the gulf that he sees between the old and new ideas by suggesting that the produce obtained from land depends not "on a single principle, but on two antagonising principles. There is another agency, in habitual antagonism to the law of diminishing return from land....It is no other than the progress of civilization."¹⁸

These views of Mill regarding the productivity of land were adopted by most of the subsequent eminent economists. They could not overlook the

¹⁷ *Principles*, Bk. I, Chapter XII, Sec. 3.

¹⁸ *Principles*, Bk. I, Chapter XII, Sec. 3.

fact emphasised by Mill that the law of diminishing returns is only true so long as it is assumed that the increased amount of labour and capital is applied to land in the same old-fashioned way. As soon as it is assumed that some radical change takes place in the art of agricultural production like the rotation of crops, introduction of new and improved varieties of crops, or of some powerful fertiliser not previously known, or of cheap agricultural machinery, increased labour and capital may yield proportionately larger returns.

The statement of Marshall of the law of diminishing returns is just a reproduction of the views of Mill. "An increase in the capital and labour applied in the cultivation of land causes, in general, a less than proportionate increase in the amount of produce raised, unless it happens to coincide with an improvement in the arts of agriculture."¹⁹

The modifying condition "improvement in the arts of agriculture" makes Marshall also admit like Mill that "even in agriculture the law of increasing return is constantly contending with that of diminishing return, and many of the lands which were neglected at first give a generous response to careful cultivation; and meanwhile the development of roads and rail-roads, and the growth of varied markets and varied industries, render possible innumerable economies in production."²⁰

Thus while with the old writers like Malthus and Ricardo the principle of diminishing returns was the statement of a great and an immutable law of nature, which no human effort and ingenuity could ever succeed in overcoming, with Marshall as with Mill it is a statement of a commonly observed fact that mere multiplication of productive effort, unaccompanied by more effective reorganisation of agriculture utilising to its fullest extent the improved technique of production, will generally result in proportionately diminishing return.

Commenting on the laws of increasing, constant and diminishing return (or costs) Pigou correctly remarks: "The relations which these laws express between variations in supply price and variations in output are not necessarily the relations which do subsist between these things in history, but the relations which would subsist subject to the condition *other things being equal*. In real life, with the general advance of knowledge, new methods of production are being continually introduced and new technical appliances invented." He restricts the use of these terms to express relations when only changes in the scale of output are taken into consideration. "An industry is said to conform to increasing, constant, or decreasing supply price, when apart

¹⁹ *Principles of Economics*, IV, III-I.

²⁰ *Principles*, VI, XII. I.

from changes in technique or other inventions not due to changes in the scale of output, increase of output would be associated, as the case may be, with increasing, constant, or decreasing supply price. Therefore an industry may display continually falling supply price through a long series of years, and yet may not be operating under the conditions of decreasing supply price as understood here.”⁸¹

We must clearly realise the force of the truth observed by Mill regarding the changes in the result of the productive effort of man, when subjected to the dynamic influence of increasing knowledge and improvements in the technique of production. Let us state it over again that looked at historically, the very same forces that have brought about increased returns to the productive effort of man in manufacturing industry have also brought about increasing returns to agriculture and the produce from the earth in general. Looked at historically, the law of increasing returns has been applicable both to industry and agriculture; and the antithesis drawn by the English classical economists between the law of increasing and decreasing returns is based on false assumption and is entirely misleading. The possibility of agricultural improvement even now is very great. Seligman observes with a great deal of truth that “scientific ideas have not been so fully applied to agriculture in our own times, because the amount of food required by the existing number is too easily obtained from nature. Nothing is more certain than the great influence of human effort on the character of the soil. Just as the best land can become the poorest through wasteful cultivation, so the worst land can be converted into the most fruitful. The application of manure, both animal and mineral, and the replacement of an extensive by an intensive cultivation, with the proper rotation of crops, will soon change the chemical ingredients of the soil. The problem is not one of technical possibility, but of economic profit. Up to this time there has been in the greater part of the Western world such an abundance of successively fresh tracts of land, that adequate returns have been achieved by the extensive methods of cultivation, involving only the most superficial tillage. Even the so-called more intensive cultivation has denoted only the slightest application of capital to land. In the Oriental countries, on the other hand, the ignorance of scientific agronomy has made intensive culture depend almost wholly upon the hand and not the head. What is really meant by the possibilities of the application of science and capital to agriculture, in some such proportions as they are now utilised in industry, may be faintly discerned in the garden patches and truck farms in the neighbourhood of great cities. In certain parts of Europe, in fact, the tenant on

⁸¹ *Economics of Welfare*, II, XI-4.

the expiration of the lease has the right of carting away with him a certain depth of soil. The land itself is thus coming to be in a sense the product of human energy."²²

These changes in the conception of the law of diminishing returns are bound to radically change the views on population too. In the first place as soon as the interdependence of the various productive efforts of man is realised, and it is seen that the improvements in one particular industrial pursuit of man has far-reaching repercussion on the others, the economic limit to the growth of population is to be found in the productivity of human industry as a whole. Secondly, as soon as it is admitted that increase in our knowledge about the forces of nature, and improvements in the art of production, make it possible to obtain from the earth a proportionately increasing produce to increased application of labour and capital, the population question presents itself in a very different light than it did to the classical economists, who did not believe in such changes in agricultural productivity. It is Mill who, for the first time, more correctly brings out the relation between the population increase and prosperity : "Whether, at the present or any other time, the produce of industry, proportionately to the labour employed, is increasing or diminishing, and the average condition of the people improving or deteriorating, depends upon whether population is advancing faster than improvement, or improvement than population. After a degree of density has been attained, sufficient to allow the principal benefits of the combination of labour, all further increase tends in itself to mischief, so far as regards the average condition of the people; but the progress of improvement has a counteracting operation, and allows of increased numbers without any deterioration, and even consistently with a higher average of comfort. Improvement must here be understood in a wide sense, including not only new industrial inventions, or an extended use of those already known, but improvements in institutions, education, opinions, and human affairs generally, provided they tend, as almost all improvements do, to give new motives or new facilities to production. If the productive powers of the country increase as rapidly as advancing numbers call for an augmentation of produce, it is not necessary to obtain that augmentation by the cultivation of soils more sterile than the worst already under culture, or by applying additional labour to the old soils at a diminished advantage; or at all events this loss of power is compensated by the increased efficiency with which, in the progress of improvement, labour is employed in manufacture. In one way or the other, the increased population is provided for and all are as well off as before. But if the growth

²² *Principles of Economics*, Eleventh Edition, p. 45.

of human power over nature is suspended or slackened, and population does not slacken its increase ; if with only the existing command over natural agencies, those agencies are called upon for an increased produce ; this greater produce will not be afforded to the increased population, without either demanding on the average a greater effort from each, or on the average reducing each to a smaller ration out of the aggregate produce."²³

Thus Mill comes to a conclusion similar to the one arrived at by modern "optimum" theorists, that in a given stage of the development of knowledge of the arts of production there is a certain amount of population which is the most desirable. As Carr Saunders remarks : "In any country at any given time there is a certain amount of skill and knowledge available and there are certain habits and customs which govern the use made of this skill and knowledge. Taking all these conditions into consideration, then it is clear that there is a particular density of population which must be reached and must not be exceeded if the largest possible income per head is to be obtained. As we have seen, there is for any piece of land, where a certain amount of skill is available, a point when, by the application of a definite amount of capital and labour, the maximum return per head is reached ; if less is applied the return per head will again be less, though in this latter case the total produce will be greater. So in any country, however, many complications be introduced by the use of industrialised and the exchange of manufactured articles for food grown abroad, there is a density of population which is more desirable than any other from the point of view of income per head. This may be called the 'optimum' density."²⁴

The "optimum" theory of population undoubtedly is a great advance on Malthusian theory. It strikes a greater truth when it suggests that it is not food alone, but the productivity of human industry as a whole, which sets the economic limit up to which population can desirably increase ; and also that increase in human knowledge and improvements in the arts of production may make a higher density of population desirable. As Robbins points out : "The optimum of modern theory is one which is continuously shifting, it is essentially a function of the progress of improvements."²⁵

²³ *Principles*, Bk. I, Chapter XIII, Sec. 2.

²⁴ Cf. Canan's views, "At any given time, or, what comes to the same thing, given any particular conditions, or other things being equal, there is what may be called a point of maximum return attained, when the population is so exactly fitted to the circumstances that return (or productiveness of labour) would be less ('diminished') if it were either less or more than it is. This population has been christened the 'optimum population'.—(*Review of Economic Theory*, p. 81.)

²⁵ *London Essays on Economics*, p. 111. Compare also the following remark of Carr Saunders : "The desirable density depends upon the degree of skill and knowledge available."—(*Population*, p. 38.)

But unless the optimum is associated with a standard of life which is regarded as desirable it does not take us very far. It can easily be shown that the same amount of wealth may be produced by 1,000 persons when organised in one way or by 2,000 persons when organised in another. Before we declare one or the other as the desirable maximum we have to decide which is preferable, either 1,000 with a very high standard of life or 2,000 with a lower. If we divorce the idea of optimum from the idea of a desirable standard of life, overpopulation may appear amidst the greatest plenty. As Robbins remarks : "Theoretically it is possible to imagine a community, all of whose members enjoy the standard of life of millionaires, which was yet overpopulated in the economic sense. If the elimination of one millionaire would increase returns per head to the effort of the others, overpopulation would be present."²⁶

Moreover if population and produce increase at the same rate, there will not be only one but many optima. Which of these is to be regarded as more desirable ? This leads us to the more important question whether mere increase in numbers, standard of life remaining the same, is itself desirable. Obviously in such cases further increase of population will be regarded as desirable only if it is assumed that the existing population has attained a reasonably high standard of life. Sidgwick seems to think it "highly doubtful whether a mere increase in the number of human beings, living as an average unskilled labourer lives in England, can be regarded as involving a material increase in the quantum of human happiness." Pigou on the other hand takes the view that "a population which, in given conditions, maximises this quantum seems to have a much better claim to be called the optimum population than a population which maximises *real income per head.*" And he thinks that "The practice, which has gained a certain currency, of using the term in this latter sense is, therefore, unfortunate."²⁷

The practical utility of the idea of an optimum population too is not so great as it may appear at the first sight. At the most a very rough idea can be made of a population that may be the most desirable at a given time, and that too only under the assumption that there are no changes taking place in human knowledge about the forces of nature, no new inventions and discoveries, no improvements in arts of production, no further accumulation of capital, no further contacts with distant lands and no changes in the demand of the people. In actual life changes are taking place in many and perhaps in all these directions, and consequently desired maximum population would be changing every moment.

²⁶ *London Essays on Economics*, p. 120.

²⁷ *Economics of Welfare*, p. 100. (Footnote.)

Moreover like the Malthusian theory, the optimum theory too neglects the study of the more fundamental question how far the increase of population itself had been responsible in the past, and may even be responsible in the future, for the progressive improvement of the material conditions of human life. It cannot be doubted that during long periods in the past the increase of population itself provided encouragement for improvements in the arts of production. It also made possible a greater division of labour and the introduction of various economies, which allowed increasing numbers to produce a proportionately larger amount of wealth and to enjoy a higher standard of life.

A more important and a fundamental question, therefore, is what rôle the population changes themselves play in bringing about changes in the produce and hence the prosperity of the people.

INFLUENCE OF CONCENTRATION OF VISCOSITY OF COLLOIDS.

By D. N. CHAKRAVARTI,
King Edward College, Amraoti.

IN the case of emulsions and some lyophilic colloids like gelatin, agar agar, starch, etc., the viscosity is an important physical property, as very small concentrations of these substances markedly increase the viscosity of the dispersing medium. With lyophobic sols like those of gold, silver, arsenious sulphide, antimony sulphide, etc., the viscosity of the dispersing medium is only slightly affected by the presence of colloid particles.

The influence of concentration of the dispersed particles on the viscosity of sols has been investigated in the case of a few colloids and suspensions. Woudstra,¹ Bingham and Durham² and others have investigated the influence of concentration on viscosity of sols of silver, mastic sulphur and suspensions of graphite and kaolin and have observed that the viscosity is a linear function of concentration of the dispersed phase. Whilst it has been observed by Hess,³ Hatschek,⁴ Humphrey and Hatschek,⁵ Hatschek,⁶ Ostwald and others that in the case of sols of gelatin, agar agar, starch, rubber in organic solvents, the viscosity increases considerably with the increasing concentration of the sols and the concentration viscosity curves are not linear. Hence it appears from the experimental data of other workers that, in the case of sols which are distinctly lyophilic in nature, the viscosity concentration curves deviate from straight lines, whilst for the lyophobic ones they are linear.

Several attempts have been made to find out a quantitative relation between viscosity and the concentration of sols, but unfortunately no relation obtained from theoretical considerations is applicable to most sols. I have studied this problem from the experimental view-point and have determined the viscosities of the following sols at different concentrations :—

- (1) Ferric phosphate, (2) Zirconium borate, (3) Chromium arsenate,
- (4) Ferric hydroxide, (5) Arsenious sulphide, (6) Ferric arsenate, (7) Ceric

¹ Woudstra, *Z. Physikal. Chem.*, 1908, **63**, 1582.

² Bingham and Durham, *Jour. Amer. Chem. Soc.*, 1911, **46**, 278.

³ Hess, *Koll. Zeit.*, 1920, **27**, 1.

⁴ Hatschek, compare *Z. Chem. Ind. Kolloid*, 1910, **7**, 301.

⁵ Humphrey and Hatschek, *Proc. Phys. Soc.*, 1916, **28**, 274.

⁶ Hatschek, *Koll. Zeit.*, 1918, **12**, 95.

hydroxide, (8) Molybdic acid, (9) Ferric tungstate, (10) Antimonic acid, (11) Vanadium pentoxide, (12) Mastic, (13) Chromium tungstate, (14) Zirconium hydroxide, (15) Chromium hydroxide (16) Aluminium hydroxide, (17) Gum dammar, (18) Ferric borate.

The measurements were carried on at 30°.

TABLE I.

Ferric phosphate.—Concentration of the sol A is 28.77 grams of ferric phosphate and 0.4518 gram of chlorine per litre.

Specific conductivity = $7 \cdot 405 \times 10^{-4}$ r.o.

Sol	A	$\frac{3}{4}A$	$\frac{1}{2}A$	$\frac{1}{4}A$
Viscosity	0.01210	0.01093	0.00994	0.00916

TABLE II.

Zirconium borate.—Concentration of the sol A is 25.27 grams of zirconium borate and 0.2288 gram of NO_3 per litre.

Specific conductivity $8 \cdot 227 \times 10^{-4}$ r.o.

Sol	A	$\frac{3}{4}A$	$\frac{1}{2}A$	$\frac{1}{4}A$
Viscosity	0.02265	0.01753	0.01443	0.01230

TABLE III.

Chromium arsenate.—Concentration of the sol A is 35.60 grams of chromium arsenate and 0.7006 gram of chlorine per litre.

Specific conductivity = $1 \cdot 283 \times 10^{-3}$ r.o.

Sol	A	$\frac{3}{4}A$	$\frac{1}{2}A$	$\frac{1}{4}A$
Viscosity	0.01473	0.01253	0.01075	0.00950

TABLE IV.

Ferric hydroxide.—Concentration of the sol A is 6.88 grams of Fe_2O_3 and 0.8112 gram of chlorine per litre.

Specific conductivity $3 \cdot 575 \times 10^{-3}$ r.o.

Sol	A	$\frac{3}{4}A$	$\frac{1}{2}A$	$\frac{1}{4}A$
Viscosity	0.00838	0.00824	0.00811	....

TABLE V.

Arsenious sulphide.—Concentration of the sol A is 13.46 grams of As_2S_3 and 0.09274 gram of HS per litre.

Specific conductivity = $3 \cdot 13 \times 10^{-4}$ r.o.

Sol	A	$\frac{3}{4}A$	$\frac{1}{2}A$	$\frac{1}{4}A$
Viscosity	0.00832	0.00820	0.00808	....

TABLE VI.

Ferric arsenate.—Concentration of the sol A is 19.48 grams of ferric arsenate and 1.359 gram of chlorine per litre.

Specific conductivity = 1.684×10^{-2} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.01521	0.01388	0.01288	....

TABLE VII.

Ceric hydroxide.—Concentration of the sol A is 10.78 grams of CeO_2 per litre.

Specific conductivity = 1.882×10^{-3} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.00830	0.00824	0.00817	0.00811

TABLE VIII.

Molybdic acid.—Concentration of the sol A is 4.34 grams of MoO_3 per litre.

Specific conductivity = 9.876×10^{-4} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$
Viscosity	0.00829	0.00823	0.00817

TABLE IX.

Ferric tungstate.—Concentration of the sol A is 14.04 grams of ferric tungstate and 1.359 gram of chlorine per litre.

Specific conductivity = 5.342×10^{-3} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.00884	0.00861	0.00842	0.00821

TABLE X.

Antimonic acid.—Concentration of the sol A is 3.98 grams of Sb_2O_3 per litre.

Specific conductivity = 1.395×10^{-4} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.00831	0.00825	0.00818	0.00812

TABLE XI.

Vanadium pentoxide.—Concentration of the sol A is 5.275 grams of V_2O_5 in the colloidal state and 0.25 gram of V_2O_5 in the dissolved condition per litre.

Specific conductivity = 3.460×10^{-3} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.01312	0.01220	0.01144	0.01082

TABLE XII.

Mastic.—Concentration of the sol A is 2.00 grams per litre.

Specific conductivity = 1.324×10^{-4} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.00826	0.00821	0.00817	0.00813

TABLE XIII.

Chromium tungstate.—Concentration of the sol A is 8.31 grams of chromium tungstate and 0.6309 gram of chlorine per litre.

Specific conductivity = 1.597×10^{-3} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.00864	0.00854	0.00843	0.00835

TABLE XIV.

Zirconium hydroxide.—Concentration of the sol A is 17.39 grams of ZrO_2 per litre.

Specific conductivity = 1.269×10^{-3} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.02129	0.01606	0.01339	0.01072

TABLE XV.

Chromium hydroxide.—Concentration of the sol A is 11.48 grams of Cr_2O_3 per litre.

Specific conductivity = 7.125×10^{-4} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.00920	0.00891	0.00860	0.00831

TABLE XVI.

Aluminium hydroxide.—Concentration of the sol A is 4.14 grams of Al_2O_3 per litre.

Specific conductivity = 5.625×10^{-4} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.00823	0.00816	0.00809	....

TABLE XVII.

Gum dammar.—Concentration of the sol A is 0.58 grams of gum dammar per litre.

Specific conductivity = 5.207×10^{-5} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{4}A$	$\frac{1}{8}A$
Viscosity	0.00825	0.00821	0.00818	....

TABLE XVIII.

Ferric borate.—Concentration of the sol A is 23.51 grams of ferric borate and 0.6433 grams of chlorine per litre.

Specific conductivity = 3.529×10^{-4} r.o.

Sol	A	$\frac{1}{2}A$	$\frac{1}{3}A$	$\frac{1}{4}A$
Viscosity	0.00870	0.00850	0.00832	0.00817

From the foregoing experimental results on the influence of concentration on viscosity of eighteen sols it will be observed that the viscosity of all sols decreases with the decrease of concentration of the colloid.

The first mathematical treatment of the change in the viscosity of the dispersing medium due to the presence of an ideal suspension was made by A. Einstein.⁷ He assumed that the suspended particles are perfectly rigid spheres, of diameter smaller than the distance between two colloid particles in the dispersing medium, and utilising the equations of hydrodynamics he arrived at the following relation—

$$\eta_s = \eta_\infty (1 + 2.5\phi).$$

Here η_s is the viscosity of the sol, η_∞ that of the pure dispersing liquid, and ϕ is the aggregate volume of the spheres per unit volume of the sol.

It is apparent from the equation of Einstein that the increase in the viscosity of the sols is linear with increasing concentration of the colloid particles.

In order to calculate the value of ϕ , I have determined the densities of the colloidal particles by the following method :—

The sol was first coagulated by the addition of an electrolyte, filtered and washed free from the absorbed electrolyte, and dried in an air oven at a temperature of about 105°. The density measurements of these precipitates were carried out in a N. P. L. specific gravity bottle and the following results were obtained.

TABLE XIX.

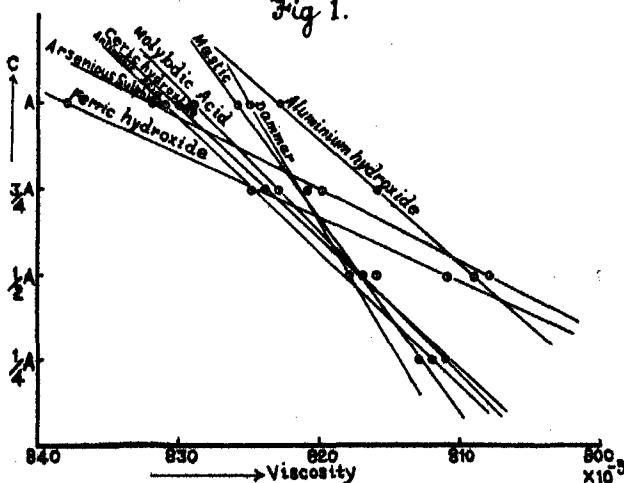
Sols	..	..	..	Density
Ferric phosphate	..	..	..	2.58
Zirconium borate	..	..	..	2.21
Chromium arsenate	..	..	..	2.69
Ferric hydroxide	..	..	..	3.88
Arsenious sulphide	..	..	..	2.95

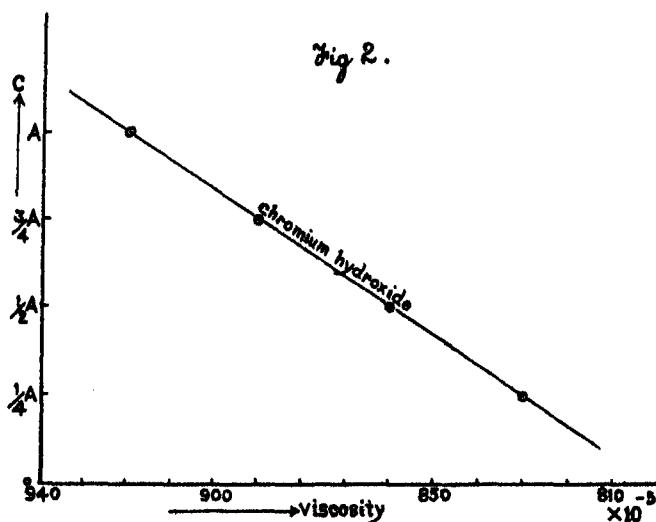
⁷ A. Einstein, *Ann. d. Physik.*, 1908, 19 (4), 289; *Koll. Zeit.*, 1920, 27, 187.

Sols			Density
Ferric arsenate	..	..	3.27
Ceric hydroxide	..	..	4.02
Molybdic acid	..	..	2.80
Ferric tungstate	..	..	4.97
Antimonic acid	..	..	5.92
Vanadium pentoxide	..	..	1.17
Mastic	..	..	1.06
Chromium tungstate	..	..	6.10
Zirconium hydroxide	..	..	3.58
Chromium hydroxide	..	..	4.54
Aluminium hydroxide	..	..	3.54
Gum dammar	..	..	1.03
Ferric borate	..	..	2.32

I have tested the relation of Einstein with the following sols :—(1) Ferric hydroxide, (2) Arsenious sulphide, (3) Ceric hydroxide, (4) Molybdic acid, (5) Antimonic acid, (6) Mastic, (7) Chromium hydroxide, (8) Aluminium hydroxide, (9) Gum dammar, and have observed that when η_s/η_∞ are plotted against concentrations a straight line is obtained for these sols (compare Figs. 1 a and 2 a). Moreover, a straight line is obtained by plotting η_s against the concentration of the sol (compare Figs. 1 and 2). Hence it may be concluded that

Fig. 1.



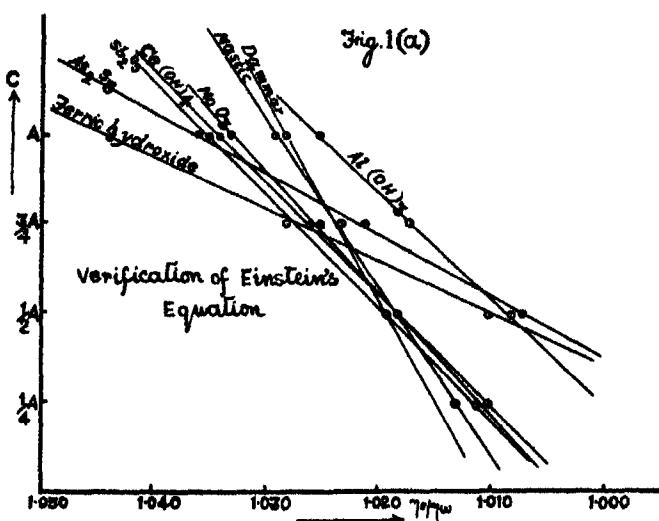


Einstein's equation is applicable to these sols; the value of the constant varies with different sols, as is evident from the following table:—

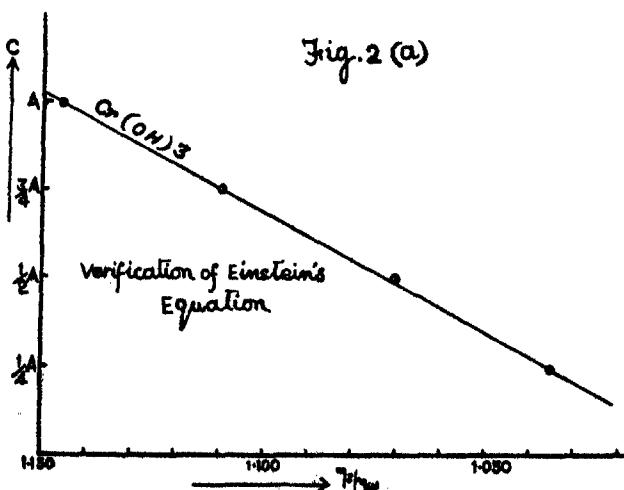
TABLE XX.

Sols	Concentration in grams per litre of sol A	Value of the Constant
Ferric hydroxide	2.04
Arsenious sulphide	1.51
Ceric hydroxide	1.23
Molybdic acid	2.37
Antimonic acid	1.40
Mastic	2.82
Chromium hydroxide	2.84
Aluminium hydroxide	2.25
Gum dammar	3.13

From the graph obtained by plotting η_s/η_∞ against the concentration of the sols, Einstein's constant for different sols was calculated by extrapolating the values of the two axes and determining the tangent of the inclination of these straight lines. In order to obtain the degree of hydration, the values of the ϕ for different dilutions were calculated by substituting the values of η_s and the constant in the Einstein relation. By subtracting from the



calculated values of ϕ at different dilutions the value of ϕ obtained if there is no hydration, the percentages of hydration were calculated.



Thus I have calculated the degree of hydration of the above sols from Einstein's equation on the assumption that the viscosity of the colloidal solutions is directly proportional to the concentration of the dispersed phase.

The percentages of hydration were calculated at different concentrations and the following results were obtained :—

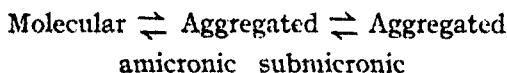
TABLE XXI.

Sol		Concentration	%hydration
Ferric hydroxide	..	A	11.10
	..	$\frac{3}{4}$ A	8.55
	..	$\frac{1}{2}$ A	4.51
Arsenious sulphide	..	A	4.23
	..	$\frac{3}{4}$ A	3.07
	..	$\frac{1}{2}$ A	1.03
Ceric hydroxide	..	A	9.32
	..	$\frac{3}{4}$ A	9.51
	..	$\frac{1}{2}$ A	9.91
	..	$\frac{1}{4}$ A	11.13
Molybdic acid	..	A	8.03
	..	$\frac{3}{4}$ A	8.13
	..	$\frac{1}{2}$ A	8.85
Antimonic acid	..	A	37.54
	..	$\frac{3}{4}$ A	38.65
	..	$\frac{1}{2}$ A	39.06
	..	$\frac{1}{4}$ A	46.80
Mastic (Gum)	..	A	13.93
	..	$\frac{3}{4}$ A	14.74
	..	$\frac{1}{2}$ A	17.51
	..	$\frac{1}{4}$ A	25.92
Chromium hydroxide	..	A	19.24
	..	$\frac{3}{4}$ A	18.75
	..	$\frac{1}{2}$ A	18.45
	..	$\frac{1}{4}$ A	11.20
Aluminium hydroxide	..	A	8.98
	..	$\frac{3}{4}$ A	7.92
	..	$\frac{1}{2}$ A	5.29
Gum dammar	..	A	14.90
	..	$\frac{3}{4}$ A	15.31
	..	$\frac{1}{2}$ A	20.56

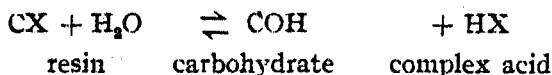
It is generally believed that sols of ferric hydroxide, arsenious sulphide, chromium hydroxide and aluminium hydroxide are more lyophobic than lyophilic in nature; whereas the sols of ceric hydroxide, molybdic acid, antimonic acid, mastic and gum dammar are more lyophilic than lyophobic. It will be observed that the percentages of hydration of these lyophilic sols are more pronounced than those of lyophobic ones for the same concentrations.

It is interesting to note that for ferric hydroxide, arsenious sulphide, chromium hydroxide and aluminium hydroxide sols the percentage of hydration as calculated from Einstein's equation decreases with decreasing concentration of the sols ; whereas with sols of ceric hydroxide, molybdic acid, antimonic acid, mastic and gum dammar, the percentage of hydration increases with decreasing concentrations of these sols.

In the previous part of this thesis I have shown that the viscosities of gelatin, albumin and other proteinous substances under varying hydrogen-ion-concentrations can be explained on the view of the disintegration of these lyophilic colloids. It is well known that the lyophilic colloids like those of gelatin, albumin, etc., are sometimes termed water-soluble colloids, in view of the fact that these solid substances are easily converted into smaller dispersed colloid particles by the simple addition of water. I am of the opinion that the lyophilic colloids as a general rule have a tendency to disintegrate into smaller particles on the dilution of the colloids by the addition of more water. The results obtained by Ghosh and Dhar⁸ with the sols of silicic, vanadic, antimonic, telluric, molybdic, and tungstic acids show that a certain percentage of these substances are in the dissolved condition of the molecular state, and they have shown that the following equilibria exist in the colloidal solutions of these substances.



Freundlich (compare *Colloid and Capillary Chemistry*) reports that some of these colloids may be termed semi-colloids. From my researches I have concluded that the sols of antimony, vanadic, silicic and molybdic acids are distinctly lyophilic in character. I have also shown that the suspensions of resinous matters like those of mastic, gamboge, dammar, etc., show lyophilic properties. It has been also proved that these resinous products which are glucosides are decomposed into carbohydrates and complex acid due to the partial hydrolysis of these products as follows :—



This decomposition makes the resinous matter more stable. As this hydrolysis increases on dilution, the sols become more stable on dilution. I am of the opinion that the lyophilic colloids possess this property of disintegration into smaller aggregates on dilution. It may be, therefore, expected that as a sol of lyophilic nature is diluted, the amount of hydration per unit

⁸ Ghosh and Dhar, *Jour. Phys. Chem.*, 1931, **35**, 1905.

weight of the dispersed matter will increase, because of increased number of suspended particles with the subsequent increase in the surface. This leads to greater hydration when the sols are diluted. It appears therefore the results obtained by me on the hydration of lyophilic colloids by the application of Einstein's equation for various dilutions to a certain extent is rational, but the results for the percentage of hydration for lyophobic sols where it decreases with decreasing concentration of the sol are difficult to explain. From the concentrations of the dispersed lyophobic substances used in my experiments I conclude that the amount of water present is very large in comparison with the solid material. It is therefore to be expected in these cases that the degree of hydration, which is a consequence of the adsorption of water molecules on the colloid surface, will not vary but remain constant and in no case ought it to be less with greater dilution.

The percentage of hydration of these lyophobic and lyophilic colloids as obtained by calculating from Einstein's equation are in the following decreasing order :—

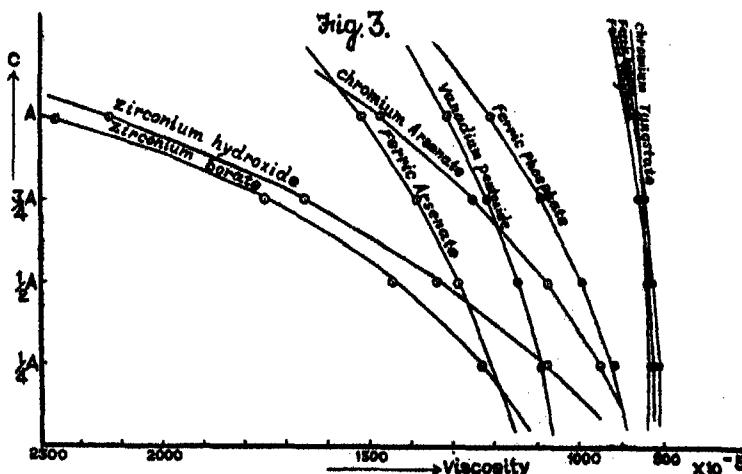
Lyophobic sols :—

Chromium hydroxide > aluminium hydroxide > ferric hydroxide > arsenious sulphide.

Lyophilic sols :—

Antimonic acid > dammar > mastic > ceric hydroxide > molybdic acid.

With sols of ferric phosphate, zirconium borate, chromium arsenate, ferric arsenate, ferric tungstate, vanadium pentoxide, chromium tungstate, zirconium hydroxide and ferric borate, the viscosity concentration curves (Fig. 3): the straight line relation, as required by Einstein's equation, is not



obtained. Some relations correlating the viscosity of a sol with its concentration have been obtained by several workers, either by making certain assumptions or simply empirically. The important among these are those of Hess, Hatschek and Arrhenius. Assuming a simple arrangement of the suspended particles as rigid spheres in a liquid flowing through a capillary, Hess⁸ obtained the equation

$$\eta_s = \frac{\eta_\omega}{1 - \phi}$$

in which the symbols have the same meaning as in the previous formula. $1 - \phi$ is obviously the volume of the dispersing medium per unit volume of the suspension. As the layer of the liquid adjacent to the colloid particles is also unmoved by the shear, this has been taken as a "dead space" and Hess introduces a factor " a " and the equation becomes

$$\eta_s = \frac{\eta_\omega}{1 - a\phi}$$

This formula leads to a graph, which deviates from straight lines for many sols. $a\phi$ represents the functional volume and hence " a " is always greater than unity. Hess verified his formula with his experimental data on the viscosity of red-blood corpuscles of various concentrations. Hatschek⁹ deduced the following relation for deformable suspended particles :—

$$\eta_s = \frac{\eta_\omega}{1 - \sqrt[3]{\phi}}$$

This formula is similar to that of Hess, where " a " is $\frac{1}{\sqrt[3]{\phi}}$. Hatschek has applied his formula to the experimental data of Hess with blood corpuscles and found a better agreement.

Arrhenius¹⁰ has adversely criticised the formula of Hatschek and applies to the viscosity data of proteins the following empirical formula: $\log \eta = \theta \cdot C$, where C is the molecular concentration. For substances of a high molecular weight and highly hydrated his modified equation becomes

$$\log \eta = \theta \frac{100\phi}{100 - (n + 1)\phi}$$

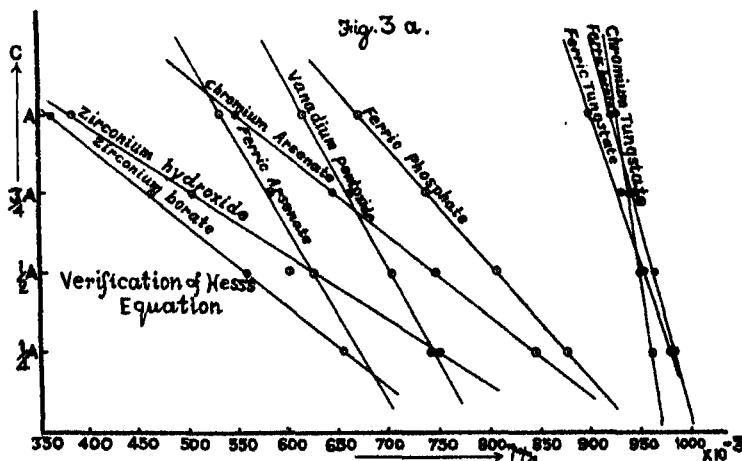
in which ϕ is the number of grams of solute in 100 grams of the sol, n is the hydration factor, or the number of grams of solvent associated with one gram of the dispersed substance. The logarithmic formula of Arrhenius, however, fails when applied to sols in organic solvents of high viscosity, such as cellulose nitrate solutions investigated by Baker and cellulose acetate solutions obtained by Mardles.

⁸ Hatschek, loc. cit.

¹⁰ Arrhenius, S. Medd. V stensk. Nobelinst., 1917, 3.

The formulæ of Hess, Hatschek and Arrhenius afford us a method of measuring the hydration of colloid particles from viscosity measurements.

I have tested the applicability of the various formulæ with my measurements of viscosities of the sols of ferric phosphate, zirconium borate, chromium arsenate, ferric tungstate, ferric arsenate, vanadium pentoxide, chromium tungstate, zirconium hydroxide and ferric borate at various concentrations. It seems to me that the formula of Hess is most applicable, as when η_w/η_s is plotted against the concentration straight lines are obtained (compare Fig. 3 a). In order to obtain an idea regarding the hydration of the colloid



particles it is apparent that the value of "a", or the functional volume, has to be calculated. The values of "a" were obtained by substituting the values of η_s , η_w and ϕ , obtained at different dilutions in the Hess equation, for these sols, and they are as given in the following table.

TABLE XXII.

Sol		Concentration in grams per litre	Value of "a"
Ferric phosphate	.. ..	28.77 21.58 14.38 7.19	30.4 32.0 34.75 44.60
Zirconium borate	.. ..	25.27 18.95 12.63 6.31	56.45 63.10 77.60 121.6

TABLE XXII—(Contd.)

Sol			Concentration in grams per litre	Value of "a"
Chromium arsenate	..	..	35.60	34.38
			26.70	36.20
			17.80	38.23
			8.90	46.77
Ferric tungstate	..	..	14.04	34.44
			10.53	31.80
			7.02	32.80
			3.51	31.05
Ferric arsenate	..	..	19.48	79.23
			14.61	94.30
			9.74	126.4
Vanadium pentoxide	..	..	5.275	86.05
			3.96	101.0
			2.637	132.3
			1.318	229.0
Chromium tungstate	..	..	8.31	51.82
			6.23	58.47
			4.15	70.20
			2.08	112.4
Zirconium hydroxide	..	..	17.39	128.3
			13.04	137.3
			8.69	165.1
			4.35	206.3
Ferric borate	..	..	23.51	7.60
			17.63	7.28
			11.75	6.88
			5.87	6.61

From the above table it will be seen that the value of "a" for the above sols is in the following decreasing order.

Zirconium hydroxide > zirconium borate > vanadium pentoxide > ferric arsenate > chromium tungstate > chromium arsenate > ferric phosphate > ferric tungstate > ferric borate.

The viscosities for the same concentration of these sols are also in the above decreasing order. It is of interest to observe that the values of "a" do not remain constant for the various concentrations and generally increase with the decreasing concentration of the sols. Similar results were obtained by Hess himself in the case of blood suspensions. It is probable that this variation in the value of "a" is due to increased hydration for smaller concentrations of these colloid particles. I have shown that, in general, lyophilic sols which obey Einstein's equation also show similar behaviour on dilution. I am, however, of opinion that the values of "a" as obtained with Hess's formula applied to the sols investigated by me, give only an approximate idea as to the degree of hydration, in view of the fact that in most cases the values of "a" are very high. Thus the dead space "a" in the case of vanadium pentoxide sol containing 1.138 grams of V_2O_5 per litre is 229.0, showing that more than 200 volumes of water are associated with one volume of solid vanadium pentoxide; or in other words the colloidal particles of vanadium pentoxide of a dimension of the order 10^{-6} cm. must be covered with a layer of water several hundred molecules deep. Arrhenius is also of the opinion that such high values of hydration are not probable.

I have already remarked that the sols of ceric hydroxide, molybdic acid, antimonic acid, mastic and gum dammar show a linear relationship between the viscosity and concentration. These sols are also not very viscous in comparison to other lyophilic colloids. It is therefore clear that in those sols which affect the viscosity of the dispersing medium only slightly, Einstein's equation is applicable; on the other hand, in the case of viscous lyophilic sols the equation of Hess has been found to be applicable.

It must be however clearly stated that Einstein's equation $\eta_s = \eta_\infty (1 + 2.5 \phi)$ is not strictly obeyed as the value of the constant changes from sol to sol. In the sols studied by me the values change from 1.23 to 3.13 and hence it is not constant in the customary sense of the term. Bancelin¹¹ showed that the value of the constant changed with the size of the colloid particles for the same dispersed substance. Bingham and Durham¹² have shown that the change in the viscosity with the increasing concentration of substances like graphite, kaolin, etc., is linear as required by Einstein's equation but the value of the constant did not agree with the theoretical value of 2.5. Similarly Odén¹³ reported that the value of the constant changed with the difference in the size of the particles of sulphur sol.

¹¹ Bancelin, *Comp. rend.*, 1911, **152**, 1582.

¹² Bingham and Durham, *loc. cit.*

¹³ Odén, *Zeit. Phys. Chem.*, 1912, **80**, 709.

From what has been said in the preceding pages regarding the equations of Einstein and Hess it appears that these equations give only an approximate idea for the hydration of the colloid particles.

In this connection it may be noted that Wo. Ostwald has suggested that the high viscosity of sols is closely associated with some kind of structure present in the sol. It has been observed by Hatschek with gelatin and starch sols, Gokun¹⁴ with gelatin sols, Biltz and Steiner¹⁵ with night blue sol, that a disturbance such as movement through a capillary of the viscometer for several times causes a decrease in the viscosity of the sols. Ostwald considers that this is due to the adherence of the dispersed particles by the membrane of the dispersion medium, which forms a structure to the colloid particles. On the other hand, Hatschek attributes this decrease in viscosity of lyophilic sols to the mechanical treatment, on the assumption that each particle is surrounded by a layer of liquid, which moves with it, and this layer is considered to be labile enough to be broken, thus decreasing the size of the moving particle. Bancroft in his *Applied Colloid Chemistry* (p. 234) writes, "If the suspended particles aggregate into chains, the viscosity will be increased very much. If the particles form larger spherical particles which are homogeneous, there will be a decrease in the viscosity, because of the decrease in the surface and consequently in the amount of bound water. If, however, the particles simply agglomerate loosely into spherical masses, the viscosity will increase because the water in the voids inside the spherical agglomeration no longer counts as free water. We shall therefore expect to get an increase of viscosity as a result of agglomeration when the effect of agglomeration is not to increase the size of homogeneous drops." Again the same author (p. 237) remarks, "The important point is that the increase in viscosity does go hand in hand with an increase in agglomeration, which must mean that increasing agglomeration involves decrease in the amount of available free water. The phenomenon is apparently general, because Freundlich¹⁶ has made use of the increase in viscosity as a means of studying the rate of agglomeration of alumina sols."

From the foregoing remarks it appears, that the high viscosity, that is obtained in the case of certain sols even with small concentrations, should be attributed to either (a) very high hydration of colloid particles, or (b) to the existence of a structure of the colloidal particles. The various equations, *viz.*, those of Hess, Hatschek and Arrhenius, which are generally applicable

¹⁴ Gokun, *Koll. Zeit.*, 1908, **3**, 84.

¹⁵ Biltz and Steiner, *Z. f. physik. Chem.*, 1910, **73**, 500.

¹⁶ Freundlich, *Trans. Farad. Soc.*, 1913, **9**, 66.

in the case of highly viscous sols, do not take into consideration the idea of a structure. It seems to me, therefore, that these equations cannot give us a quantitative idea of the degree of hydration for there are several indirect evidences in favour of the existence of a structure in a sol. The formation of a structure is likely to lead to a remarkable increase in the viscosity of a sol.

My thanks are due to Dr. N. R. Dhar of the Allahabad University for his kind interest and guidance in the course of this paper.

AN INVESTIGATION INTO THE EFFECT OF GREEN MANURING, ALONE AND IN COMBINATION WITH PHOSPHATIC FERTILISERS, ON THE YIELD AND PHOSPHATIC CONTENT OF PADDY, (UNHULLED RICE).

By D. V. BAL,

Agricultural Chemist to Government, C. P., Nagpur.

An experiment to ascertain the effect of green manure in conjunction with phosphatic fertilisers on the yield of paddy in light loamy soil, locally known as *matasi*, has been in progress for some years on the Government Experimental Farm, Labhandi, Raipur ; and advantage of this was taken to ascertain the variation, if any, in the phosphatic content of the paddy as a result of manuring. The object of this paper is therefore to set out the results of this experiment relating to the three seasons 1928-29 to 1930-31.

II. Experimental.

The experiment consists of testing eight manurial treatments, out of which the following four have been selected for ascertaining the phosphoric acid content of the seed :—(1) Control (no manure), (2) *Sann* only, grown *in situ* and turned in, (3) Same as (2) but in conjunction with 3 cwt. superphosphate per acre, applied at the time of inversion of green manure, and (4) Same as (2) but in conjunction with 3 cwt. bone-meal per acre, applied at the time of inversion of green manure.

The usual practice of the Farm when using *sann* as a green manure is to grow it as a green crop and then plough it under at the time of transplantation. The fertilisers were applied to paddy at the time of inversion of the *sann* crop. Each treatment was replicated three times, giving twelve plots, each plot being $\frac{1}{10}$ th acre in size. The treatments were assigned at random, but no local control such as 'Randomised Block' or 'Latin Square' was imposed ; so that it is not possible to eliminate major soil variations between blocks or rows and columns.

Detailed data regarding percentages of P_2O_5 in the seed, and yields of paddy per acre for the three seasons are given in Table I ; a summary of results for individual seasons is given in Table II ; and average figures of percentages of P_2O_5 and yields of paddy for the three seasons are given in Table III.

TABLE I.

Showing percentages of P_2O_5 and yield of paddy in lbs. per acre for the three seasons.

Treatments	1928-29			1929-30			1930-31		
	Percentages of P_2O_5 in paddy	Yield of paddy	Ibs. of P_2O_5 removed per acre	Percentages of P_2O_5 in paddy	Yield of paddy	Ibs. of P_2O_5 removed per acre	Percentages of P_2O_5 in paddy	Yield of paddy	Ibs. of P_2O_5 removed per acre
No manure	0.595	1520	9.043	0.444	2210	9.813	0.435	640	2.784
	0.484	1680	8.130	0.524	1560	8.174	0.548	970	5.244
	0.588	1570	9.233	0.589	1610	9.483	0.597	1400	7.098
<i>Sann</i> alone	0.400	1680	6.720	0.390	1360	5.304	0.434	1210	5.209
	0.586	2200	12.600	0.497	2050	10.200	0.432	1690	7.302
	0.520	1720	8.945	0.406	2200	8.93	0.475	1080	5.130
<i>Sann</i> + 3 cwt. superphosphate	0.518	2860	14.800	0.533	3440	18.340	0.568	2000	11.360
	0.626	2930	18.340	0.562	3250	18.270	0.546	1860	10.155
	0.617	3090	19.070	0.413	2380	9.830	0.544	2470	13.440
<i>Sann</i> + 3 cwt. bone-meal	0.600	2400	14.400	0.579	2260	13.090	0.529	1520	8.040
	0.655	2670	17.490	0.596	2020	13.470	0.570	2600	14.820
	0.598	2580	15.260	0.477	2980	14.210	0.584	2370	13.840

TABLE II.

Showing a summary of results for the individual seasons.

	1928-29						
	No manure	<i>Sann</i> alone	<i>Sann</i> + 3 cwt. super-phosphate	<i>Sann</i> + 3 cwt. bone-meal	Mean	S. E.	S. E. %
Average P_2O_5 % in seed ..	0.556	0.502	0.587	0.617	0.565	0.038	6.74
Average yield in lbs. per acre ..	1590	1867	2960	2543	2240	101.2	4.61
Average amount of P_2O_5 removed per acre in lbs. ..	8.802	9.422	17.407	15.717	12.837	1.187	9.24

TABLE II—(Contd.)

	1929-30						
	No manure	Sann alone	Sann + 3 cwt. super-phosphate	Sann + 3 cwt. bone-meal	Mean	S. E.	S. E. %
Average P ₂ O ₅ % in seed	0.519	0.481	0.503	0.561	0.501	0.040	7.04
Average yield in lbs. per acre	1793	1870	3023	2420	2268.3	273.95	12.07
Average amount of P ₂ O ₅ removed per acre in lbs.	9.157	8.145	15.480	13.590	11.593	1.62	13.97
	1930-31						
Average P ₂ O ₅ % in seed	0.497	0.447	0.553	0.561	0.514	0.020	3.01
Average yield in lbs. per acre	1003	1327	2110	2163	1650.8	273.0	11.08
Average amount of P ₂ O ₅ removed per acre in lbs.	5.042	5.88	11.652	12.233	8.702	1.366	15.69

TABLE III.

Showing a summary of average results for the three seasons 1928-29 to 1930-31.

	No manure	Sann only	Sann + 3 cwt. super-phosphate	Sann + 3 cwt. bone-meal	Mean	S. E.	S. E. %
Average P ₂ O ₅ %	0.524	0.460	0.547	0.576	0.527	0.020	3.71
Average yield in lbs. per acre ..	1462.2	1687.8	2607.8	2375.5	2055.8	125.4	6.09
Average amount of P ₂ O ₅ removed per acre, in lbs. ..	7.667	7.816	14.846	13.847	11.044	0.81	7.33

III. Discussion of Results.

Percentage of phosphoric acid :—It will be observed from the figures given in Table II that, in all the three seasons under consideration, plots receiving sann alone have shown a lower percentage of P₂O₅ in the seed than that found in seeds obtained from plots receiving sann in conjunction with bone-meal.

In the season 1930-31 the differences in P_2O_5 content of the seeds due to treatments are definitely significant according to the "Z" test, but in the other two seasons the differences were not significant due to high standard error.

Average figures of percentages of P_2O_5 as recorded in Table III, however, show that differences in phosphoric acid content due to treatments are definitely significant, except in the case of the plots treated with *sann* alone. Chemical analysis indicates that *matasi* soil of this tract is usually poor in phosphoric acid, as it contains only about 0.028 per cent. of total and 0.005 to 0.010 per cent. of available P_2O_5 . This is further corroborated by the fact that applications of phosphatic fertilisers have increased the P_2O_5 content of the crop—a phenomenon known to occur usually in poor soils only. (*Vide* Russell, 1932.) These figures also show that, although addition of *sann* alone appreciably increases the yield of paddy, a proportionate additional quantity of P_2O_5 not being available in the soil, the percentage of this constituent in the seed becomes lower than that found in the case of seeds obtained from unmanured plots.

Yield of paddy :—An analysis of the figures of yields, recorded in Table III, shows the following :—

- (a) Plots receiving no manure have given the lowest yields for all the three seasons.
- (b) Plots receiving *sann* give higher yields than those obtained from unmanured plots, but the difference is not statistically significant.
- (c) Although in this experiment there are no plots receiving phosphatic fertilisers alone, which would have helped us to draw an inference regarding the comparative effect of nitrogen and phosphoric acid on the yield of paddy, yet from the figures available it can be safely said that the effect of phosphatic fertilisers in conjunction with *sann* on the yield of paddy seems to be more marked than the effect of nitrogen alone in the form of *sann*.
- (d) The superiority of superphosphate over bone-meal is statistically significant only for the season 1928-29.

The writer is much obliged to Dr. R. J. Kalamkar for having calculated the figures of standard errors recorded in the various tables included in this paper.

IV. Summary.

- (1) Application of nitrogen alone in the form of *sann* to light loamy soil, locally known as *matasi*, gives a higher yield of paddy per acre than that

obtained in the case of unmanured plots ; but application of *sann* in conjunction with phosphatic fertilisers gives a significantly higher yield than that obtained from the plots receiving *sann* alone.

(2) It is seen that the percentage of P_2O_5 in paddy seed is increased by applications of phosphatic fertilisers in conjunction with *sann*.

(3) Application of nitrogen alone in the form of *sann* reduces the percentage of P_2O_5 in the seed.

(4) It is important, therefore, both from the point of obtaining high yields and also from the point of nutrition, that whenever nitrogenous fertilisers are applied to the paddy fields an adequate quantity of phosphatic fertiliser should also be applied.

REFERENCE.

1. Russell, E. J., *Soil Conditions and Plant Growth*, Sixth Edition, p. 80 (Longmans, Green and Co., 1932).

EPIGRAPHIC NOTES—II.

BY PROF. V. V. MIRASHI, M.A., Nagpur.

IDENTIFICATION OF LOCALITIES.

I. The Patna Museum Third Plate of the Vākāṭaka King, Pravarasena II.

THIS plate is one of a set of four or five copper-plates issued by Pravarasena II of the Vākāṭaka Dynasty, who ruled in the Central Provinces and Berar in the fifth century A.D. It has been edited by Prof. A. S. Altekar of Benares Hindu University.¹ In his introductory article the editor states that the plate was 'found somewhere in the Central Provinces'. Dr. K. P. Jayaswal remarks in his *History of India 150 A.D. to A.D. 350*,² that the plates came from Jubbulpur. The late R. B. Hiralal, on the other hand, thought that the present plate belonged to the set of three or four plates found at Rāmṭek in Nagpur District,³ most of which are now missing. The Patna Museum plate records the grant of a village and mentions its boundaries on all sides, but in the absence of definite information about its provenance none of the places have yet been satisfactorily identified.⁴ My curiosity about this matter was aroused while I was studying other inscriptions of Pravarasena II. After a lot of correspondence I have succeeded in settling the provenance of the plate, which has also helped me in identifying the localities mentioned in it.

I tried first to see if the Patna Museum plate belongs to the same set as the Rāmṭek plate, as suggested by R. B. Hiralal. For this it was necessary to compare the sizes, the positions of the holes for their respective rings, as well as the characters of the two plates. Through the courtesy of the late Rai Saheb Manoranjan Ghosh, Curator of the Patna Museum, I obtained a facsimile of the Patna plate, but it was not so easy to get one of the Rāmṭek

¹ *Journal of the Bihar and Orissa Research Society*, Vol. XIV, p. 461.

² Page 74.

³ *Inscriptions in the Central Provinces and Berar* (2nd Edition), p. 5. These plates were discovered by some contractors while digging for manganese at Rāmṭek. They divided them among themselves. Only one of the plates (called hereafter the Rāmṭek plate) could be recovered and was until lately in the possession of Mr. G. P. Dick, Barrister. It has been described by R. B. Hiralal in his *Inscriptions, etc.*, pp. 4-5. Some other plates of the set were taken as far as Kathiawad and cannot now be traced.

⁴ Prof. Altekar has suggested the identifications of only two of them, viz., Brahmapūraka and Madhukajjhari, but these are unsatisfactory, as already shown in this *Journal*, Vol. I, p. 2.

plate. As stated before, most of the plates of this set were lost soon after their discovery. Only one of these reached the hands of Mr. Dick and was in his possession till he left for England some years ago. In reply to my request for a facsimile of it, Mr. Dick informed me from England that the plate was forgotten somewhere when he had to leave Nagpur owing to sudden illness, and that it could no longer be traced. Fortunately R. B. Hiralal had copies of its photographs taken by Mr. Suboor of the Nagpur Museum when it was discovered, and these he kindly sent me. It is of course not possible to know the exact size of any plate from its photograph, unless the scale of the latter is known; but it may be stated here that from the photograph the length and breadth of the Rāmṭek plate stand to each other in practically the same proportion as those of the Patna plate, and the same applies to the position of their holes for the rings which connected them with other plates.⁵ Again, the characters of both the plates are not only of the box-headed variety but are also similarly formed. Besides, no portion of the text is common to them. The Patna plate, which records the donation of a village and states its boundaries, was probably the third plate of its set, while the Rāmṭek plate, which contains the exemptions of the donee from taxes, etc., seems to be the fourth or penultimate plate of its set. These points seem to have weighed with R. B. Hiralal when he inferred that both the Patna and Rāmṭek plates were of the same set.

A study of their texts shows, however, that this is not likely to be correct. For the gift recorded in the Patna plate was made by Pravarasena II for the increase of the religious merit of his *mother*,⁶ while the extant portion of the Rāmṭek plate shows that it was made for the increase of *his own* religious merit, life, strength and prosperity, as well as for his well-being in this world and the next.⁷ Again the villages mentioned in the Patna plates cannot be traced in the vicinity of Rāmṭek. This convinced me that the two plates could not have belonged to the same set.

I next tried to collect more information about the circumstances of the discovery of the Patna plate. After a good deal of correspondence I came to know⁸ that the plate was discovered in about 1919, while digging the

⁵ The Patna plate measures 7.4" by 4". About 1.1" from the centre there is a hole about .35" in diameter. The photograph of the Rāmṭek plate measures 5.7" by 3.1". About .8" from the centre there is a hole about .3" in diameter.

⁶ 'मातृभूरिकानि पुण्योपचये ऐहिकामुद्दिम[के*]' J. B. O. R. S., Vol. XIV, p. 472.

⁷ 'यथासामिरात्मधर्मायुर्वर्लमै (बलै) शृष्ट्यविद्युदये इहामुश्र चात्मानुप्राहय' in the unpublished Rāmṭek plate.

⁸ I am indebted for the following information to Dr. P. N. Sen of Narsinghpur.

foundation of the bungalow (or one of its out-houses) of the District Superintendent of Police at Bālāghāṭ. Dr. P. N. Sen, who was then Civil Surgeon at Bālāghāṭ, received the present plate from the District Superintendent of Police (whose name he cannot now recollect), and sent it to his brother, Babu (now Rai Bahadur) Manmath Nath Sen. Dr. Sen does not know what became of the other plates of the set. Mr. M. N. Sen, who was then Sub-Divisional Officer, Jamatra, Santal Pargana, presented it to the Patna Museum through the Superintendent of the Archæological Survey, Central Circle. It has since then been preserved in the Patna Museum.

The foregoing account of the circumstances of its discovery definitely settles the provenance of the Patna plate and gives us a clue for the identification of the place-names mentioned in it. The plate records the donation of a village named Śrī-Parmakā, which was situated to the east of Brahmapūraka on the road passing through Sundhā,⁹ to the west of Millukadratha, to the north of Madhukajjhari and to the south of Darbhaviraka.¹⁰ Some of these places I have been able to identify in the vicinity of Bālāghāṭ with the help of detailed survey maps. Brahmapūraka is probably Bāhmni, about 12 miles north by west of Bālāghāṭ. It lies on the road which connects Lalburra with Samnāpur. The latter may represent ancient Sundhā or Sundhāpura. Madhukajjhari is probably Murjhar about 3 miles southeast of Bāhmni, and Millukadratha, modern Mugardarā, 2 miles north by east of Bāhmni. Nothing corresponding to Śrī-Parmakā, the donated village, can be traced in the vicinity of these places, but it was probably situated between Bāhmni and Mugardarā. Darbhaviraka cannot now be traced.

The villages in the recently discovered Tiroḍi plates and those in the Seoni plates can be satisfactorily identified, as shown elsewhere, in the Bālāghāṭ and Bhanḍārā Districts respectively.¹¹ This shows that the territory under the direct rule of the Vākāṭaka king Pravarasena II comprised the modern districts of Bālāghāṭ and Bhanḍārā and extended in the east to the western boundary of Dakshinā Kosala (modern Chhattisgarh). This is also confirmed by the foregoing identification of the villages mentioned in the Patna Museum plate.

II. Rājim Plates of Tivaradeva.

The following information is found in *Asiatic Researches*,¹² about the discovery of these plates :—

⁹ I interpret 'सुन्धातिमार्ग—' as above and not as 'on the road to Sundhāti' as taken by the editor.

¹⁰ J. B. O. R. S., Vol. XIV, p. 472.

¹¹ See my article on the Tiroḍi plates in the *Epigraphia Indica*, Vol. XXII, pp. 170-171; *Nagpur University Journal*, Vol. I, pp. 2-3.

¹² Vol. XV, pp. 499-500.

"About forty years ago Bimbaji Bhonsla, who then ruled in Chhattisgarh, gave the Parganna of Raju into the civil charge of a Mahratta chief named Hanwant Rao Maharik; this person coming to reside in the town of Raju,¹³ began to build a house there, and some workmen, employed to dig for stones to aid the building, came upon one at the depth of five or six feet, beneath which these plates were discovered. As the spot was contiguous to the principal temple of Ramchander, generally known by the name of Raju Lochan, Maharik thought that the plates might be a record belonging to it, and accordingly, deposited them in the temple, where they have since been preserved."

The text of these plates was first published with an English translation by Prof. H. H. Wilson in *Asiatic Researches*, Vol. XV. Their contents were subsequently discussed by General Cunningham in his *Report of the Archaeological Survey of India*, Vol. XVII, pp. 17–18. The plates were finally edited by Dr. Fleet in the *Corpus Inscriptionum Indicarum*, Vol. III, p. 291 ff. None has, however, attempted till now to identify the places mentioned in it.

The plates were issued from Śripura and record the grant of a village by Mahāśiva Tīvaradeva of the Pāṇḍu Vamśa, who was the lord of Kosala. The donated village was Pimparipadraka in the *bhukti*, or sub-division, of Penthāma. The plates are now deposited with the Pujāris of the temple, who believe that they record a gift in favour of the god Rājivalochana. The donees mentioned in the plates were, however, two Brāhmaṇas, Bhavadatta and Haradatta, the sons of Gauridatta.

Of the places mentioned in these plates Śripura is the well-known Sirpur in Raipur District, about 35 miles north-east of Rājim. Pimparipadraka is undoubtedly Piprod, 3 miles north by west of Rājim. Penthāma, the headquarters of the sub-division in which Pimparipadraka was situated, may be Pondh, 6 miles north of Rājim.

III. Benares Plates of Karna.

These plates were discovered some time before 1801 at the bottom of an old well, filled with rubbish, in the old fort of Benares. They were first described by Captain Wilford in *Asiatic Researches*, Vol. IX, p. 108, and were subsequently edited by Prof. Kielhorn in *Epigraphia Indica*, Vol. II, p. 297 ff.

The plates were issued from the victorious royal camp fixed at a place which Kielhorn read at first with diffidence as Svarāga, but later on changed

¹³ i.e., Rājim in the Raipur district.

into Prayāga.¹⁴ They record a grant by Karṇadeva of the Kalachuri Dynasty, after bathing in the Venī on the occasion of the annual funeral ceremony of Gāngeyadeva. The donated village was Susī, situated in a district, the name of which Kielhorn could not make out properly. In his reading of the text he gives it diffidently as Hapāthākāsi. The donee was a Brāhmaṇa named Visvarūpa, who, or whose ancestors, had emigrated from the village Vesāla.

Kielhorn at first identified the river Venī,¹⁵ in which Karṇa had bathed before making the gift, with the Wengāṅgā of the Central Provinces. Later on, however, he corrected himself and identified it with the subterranean Saraswati which joins the Ganges at Allahabad.¹⁶ The village Vesāla is, of course, ancient Vaiśāli, which figures so prominently in Buddhist literature. Susī, as well as the district in which it was situated, have still remained unidentified.

Kielhorn's subsequent identification of the Venī is undoubtedly correct. As Fleet has conjectured¹⁷ the grant was probably made by Karṇa, not on some indefinite anniversary of the death of his father Gāngeyadeva, but on the first anniversary of his death. Gāngeyadeva, we know, was fond of residing at Prayāga (Allahabad), where he died at the foot of the *akshaya-vṛta*.¹⁸ It is therefore but natural that Karṇa should perform at Prayāga the *Śrāddha* on the first anniversary of his father's death. His own capital, we know, was at Benares; for it was at Benares that Bilhaṇa met him¹⁹ and resided while he was connected with his court. Even now stories about Karṇa Dahāria, King of Benares (*i.e.*, Karṇa of the Dāhala country, *i.e.*, the country round Jubbulpur, ruling at Benares) are current in North India.²⁰ Again the copper-plates were found at Benares, which shows that the donee probably resided there. Karṇa seems to have called him to Allahabad, where he performed the first *samvatsara śrāddha* of his father. It is, therefore, likely that the donated village was also situated in the district of Benares. And this is what we actually find in the text which reads

¹⁴ See Kielhorn's *List of Northern Inscriptions*, p. 58.

¹⁵ *Ibid.*, Vol. II, p. 299. 'The *aksharas* in the brackets (*viz.*, Hapāthā) are very indistinct and doubtful, and I cannot suggest the exact name of the district in which the village of Susī was situated.'—(Kielhorn.)

¹⁶ *Ibid.*, Vol. XI, p. 122.

¹⁷ *Ibid.*, Vol. XI, p. 146.

¹⁸ See the Jubbulpur and Khairha Copper-plates of Yaśahkarṇa, *E. I.*, Vol. II, p. 4, and Vol. XII, p. 221.

¹⁹ *Vikramāñkadeva-charita*, Canto XVIII, p. 92 ff.

²⁰ For one of these given by Sir George Grierson, see *Indian Antiquary*, Vol. XVI, p. 46.

*Kāsibhumyantargata-Susi-grāmāh*²¹ (the village Susī, situated in the sub-division of Kāśī or Benares). As for the village Susī it is probably identical with Sursi (long. 82° 52' E, and lat. 25° 12' N) in the Mirzāpur District, 9 miles north of Chunār and just outside the southern boundary of the present Benares District.

IV. Gaharwā Plates of Karnadeva.

This is another set of plates of the same king Karna, which was found in a field in the Manjhanpur Tahsil of the Allahabad District. It records Karnadeva's grant of the village Chandapahā in the Kośambapattalā (the district of Kauśāmbī). Prof. Hultzsch, who has edited the plates in *Epigraphia Indica*, Vol. XI, p. 139 ff., has correctly identified Kośamba with modern Kosam, 36 miles west of Allahabad. He could not, however, trace any place corresponding to Chandapahā. I identify it with Chanpāhā about 3 miles N.N.W. of Kosam. The close similarity of its name to Chandapahā and its proximity to Kosam (ancient Kauśāmbī) leave little doubt about the correctness of the proposed identification.

²¹ I take दृपाधा which is prefixed to कासि (i.e., काशी) भूम्यन्तर्गत as a superfluous repetition of the preceding word व्या. Kielhorn has shown that the record contains numerous mistakes due to the carelessness of the writer.

EPIGRAPHIC DISCOVERIES.

BY PROF. V. V. MIRASHI, M.A., Nagpur.

SINCE the publication of the last volume of the *University Journal* two new copper-plate inscriptions have come to light. They will in due course be published in the *Epigraphia Indica*; but as it will be a long time before they appear in print, I give here a short account of each for the information of the readers of this *Journal*.

I

Paṭṭan Plates of Pravarasena II.

A set of five plates joined by a ring with the usual Vākāṭaka seal was turned up by a plough as a farmer of Paṭṭan (Multāi Tahsil, District Betul, C.P.) was tilling his field in 1935. Mr. Rajaram Jain, Headmaster of the Vernacular Middle School, first brought the plates to notice in January, 1936. Being unable to decipher the plates he made fairly accurate eye-copies of the record, one of which reached the hands of Mr. Saboor, Coin Expert of the Nagpur Museum. The latter identified it as a Vākāṭaka grant, and took immediate steps to secure them for the Museum, where they are now deposited.

It is a set of five copper-plates issued by the Vākāṭaka king Pravarasena II, the daughter's son of the great king Chandragupta II—Vikramāditya. Like several other charters of Pravarasena II, discovered in the C.P. and Berar, it is issued from his capital Pravarapura. It records the grant of 400 *nirvaranas* of land for the maintenance of a *Sattra* (charitable house) attached to a temple dedicated to the foot-prints (*pādamūla*) of Viṣṇu at Aśvastha-khetā.¹ The village was situated on the road to Varadākhetā² in the division (*bhāga*) of Lohanagara.³ The grant was made in the twenty-seventh regnal year, on the seventh day of the dark fortnight of Kārtika. Till now the latest known year of Pravarasena II's reign was the twenty-third. The present plates, therefore, increase his reign by four years. The charter was written by Kālidāsa, who was serving under the Senāpati Kātyāyana.

¹ The site of this seems to be occupied by the modern village, Paṭṭan, which contains numerous ancient ruins.

² This is probably identical with Warūḍ, about 12 miles south of Paṭṭan.

³ This may be Loni, about 9 miles south-west of Warūḍ.

The mention of Kālidāsa in the present grant raises the interesting question of his identity with the illustrious Sanskrit poet of that name. Kālidāsa, no doubt, figures only as a scribe in the present grant, but that cannot *per se* prove or disprove his identification with the great Sanskrit poet. Such charters were generally drafted and written on copper-plates by clerks working in the office of the Minister of Peace and War (*Sāndhivigrahi*); but instances are not wanting of even great officers writing the records themselves. Thus, the writer of the Tirodi plates, discovered two years ago, of this same Vākāṭaka king Pravarasena II, which I have recently edited in the *Epigraphia Indica*,⁴ was the Chief Minister (*Rājyādhikṛta*) himself. The record on another set of plates⁵ recently brought to light, which was issued by the Rāṣṭrakūṭa king Govinda III, was written by his Minister for Peace and War. So there is nothing improbable in the supposition that the great poet wrote the present charter on the plates. Recent researches have again shown that Kālidāsa, who flourished at the court of Chandragupta II, was sent by his patron as a Commissioner to Vidarbha (modern Berar and the Marathi districts of the C.P.) to inquire and report how his grandson Pravarasena II was governing his kingdom.⁶ He seems to have lived in Vidarbha for some time and may have been attached to the office of Senāpati. Tradition says that he composed the well-known Prakrit work *Setubandha* for Pravarasena. The idea of writing his *Meghadūta* seems to have suggested itself to his mind at Rāmtek, near Nagpur (Rāmagiri of the *Meghadūta*). There is thus, *prima facie*, nothing against, and much in favour of, the identification of the scribe with the illustrious Sanskrit poet.

But a close examination of the present plates shows that this view is untenable. The scribe of the present plates had only an imperfect knowledge of Sanskrit. There are numerous orthographical and grammatical mistakes, for most of which the writer, and not the engraver, must have been responsible. We know, on the other hand, that Kālidāsa had a great command over the Sanskrit language. He has emphasised the importance of correct speech in one of his similes,⁷ and his works contain fewer instances of solecism than those of his predecessors and successors. It is incredible that such a great poet as Kālidāsa would commit the numerous mistakes of orthography, sandhi, nominal and verbal forms, syntax, etc., which disfigure the present record. Disappointing as it is, one has to admit

⁴ Vol. XXII, p. 167 ff.

⁵ This is awaiting publication in the *Epigraphia Indica*.

⁶ See e.g., K. S. Aiyangar, *Vākāṭkas and their Place in Indian History*, p. 40 ff.

⁷ *Kumārasambhava*, I, 28.

that the scribe is only a namesake and contemporary of, and not identical with, the prince of Sanskrit poets. Let us hope that some day we shall be fortunate to discover a contemporary record in which his name is indubitably mentioned.

II.

Mallār Plates of Mahā-śivagupta.

A set of three copper-plates joined by a ring with a circular seal was discovered in the debris of a dilapidated temple at Mallār in the Bilāspur Tahsil in August last. They were brought to notice by Mr. Sudhā Rām, a member of the Bilāspur Local Board, and first deciphered by Pandit Lochan Prasad Pandeya of Balpur. The plates have since been sent to the Nagpur Museum and cleaned by Mr. Suboor. Mr. K. N. Nagarkatti, I.C.S., Deputy Commissioner of Bilaspur, is taking steps to acquire them for the Nagpur Museum.

The plates are inscribed in box-headed characters closely resembling those of the Rājim and Balodā plates of Tīvaradeva. Their ring is circular and contains across the centre of its countersunk surface a legend in two lines, mentioning Śivagupta, the son of Harshagupta. Above the legend appears in relief the figure of a couchant bull (Nandi) with the Trisūla in front and a *kamandalu* behind. Below the legend is a floral device.

The plates were issued by Mahā-śivaguptarāja, the son of Harshadeva, who was born in the Lunar Dynasty and was a most devout worshipper of Maheśvara (Śiva). They record the king's donation of the village Kailāspura, in the *bhāga* or sub-division of *Taradāmśaka*, to the community of venerable Buddhist monks residing in the monastery at Taradāmśaka. The gift was made on the occasion of a solar eclipse on the new-moon day of Āshādha at the request of the king's maternal uncle, the illustrious Bhāskaravarman.

Several stone inscriptions of the time of this king have been discovered at Sirpur in the Raipur District, which was evidently his capital. Some of them mention his other name Bälārjuna.⁸ From one of them,⁹ we learn that his mother Vāsatā was a daughter of king Sūryavarman of the Varman Dynasty of Magadha. As I have shown in my article on the Thākurdiyā plates of Mahā-Pravararāja,¹⁰ this Sūryavarman is probably identical with the Maukhari prince Sūryavarman, the son of Iśvaravarman, known from

⁸ D. R. Bhandarkar's *List of Northern Inscriptions*, Nos. 1654 and 1655.

⁹ *Epigraphia Indica*, Vol. XI, p. 184 ff.

¹⁰ *Ibid.*, Vol. XXII, p. 19.

the Harāhā stone inscription,¹¹ dated (Mālava) Saṁvat 611 (555 A.D.). Bhāskaravarman was thus a son of Sūryavarman. He is known for the first time from this record.

The inscription is not dated; but if the date 530-50 A.D., which I have fixed for Tīvaradeva on various grounds in my article on the Thākurdiyā plates,¹² is accepted, Mahā-śivagupta, the grand-nephew of Tīvaradeva, will have to be placed in the first half of the seventh century A.D. He or his successor (whose name is still unknown) may have been the ruling king when Yuan Chwang visited Dakshīna Kosala (modern Chhattisgarh). The Chinese traveller states that the king of Kosala was a Kṣatriya by birth, a Buddhist in religion, and of noted benevolence. The present inscription shows that Mahā-śivagupta traced his descent from the great Lunar Dynasty and though, like his great contemporary Harsha of Kanauj, he was himself a devotee of Śiva, he made munificent gifts to Buddhist monasteries.

Several stone inscriptions have been found at Mallār. The earliest of them recently discovered is in early Brahmi characters. Another is incised in characters of the sixth or seventh century A.D. round the head of a statue of Buddha. This shows that Mallār is a very ancient site and may represent ancient Taradānśaka,¹³ though there is no similarity in the two names. Kailāsapura may be Keslā, eight miles south-east of Mallār.

¹¹ *Epigraphia Indica*, Vol. XIV, p. 278.

¹² *Ibid.*, Vol. XXII, pp. 18-22.

¹³ Taradānśaka may be the ancient name of Talahāri-maṇḍala. Talahāri is mentioned in the inscription of Jagapāla in the temple of Rājivalochana at Rājim, and in another stone inscription, now deposited in the Nagpur Museum, which seems to have come from Mallāra. In the latter record, Mallāra (modern Mallar) is said to be situated in the Talahārimaṇḍala.

THE *ANUŠTUBH* METRE—ITS HISTORY AND VARIETIES.

By PROF. S. P. CHATURVEDI, M.A.,

Morris College, Nagpur.

(I)

THE *Anuštubh* metre occupies a unique position in Sanksrit Prosody, in so far as it has been used in all the periods of the Sanskrit literature. Many Vedic metres (like *Gāyatrī*) entirely disappear in the classical literature; while such standard metres as *Shikharini*, *Mandākrāntī*, etc., which came into existence in the classical period, cannot be proved to have been used in Vedic literature. It should, therefore, be of no little interest to trace the evolution of the *Anuštubh* metre, to point out the changes it underwent in successive stages, to examine its various varieties, as given in different works on Sanskrit Prosody, and to find out specific conditions governing its use which will enable us to have an accurate and comprehensive definition of the metre as current in the post-Epic period.

There is yet another point of uniqueness in the *Anuštubh* metre. A comparative study of the metres in the Avesta and the Vedas reveal the fact that "the Vedic metres come half way between the metres of the Indo-Iranian period, in which, as the Avesta shows, the principle is the *number of syllables* only, and those of Classical Sanskrit, in which the quantity of *every single syllable* in the line is fixed."¹ Thus we see there is a gradation in the stages of the metres in Indo-Iranian literature. The Avestic metres insist on the *number of syllables* only, the Vedic metres on a quantitative rhythm of the cadence (last four or five syllables) also *besides* the number of syllables; while in the Classical Sanskrit metres the quantity of *all* the syllables in a line is determined so inalterably that a change in the quantity of *even one* letter disturbs the metre and involves metrical defect.² The well-known exception in the Classical Sanskrit metres is the *Āryā* metre wherein, as in Avesta, the determining principle, with a few restrictions, is the number of *Mātrās*, and *not* the quantity of each syllable.³ Thus the

¹ Macdonell, *Vedic Reader*, p. xvii.

² Known in Sanskrit as छन्दोभङ्गदाष.

Cf. अथ मार्षं मर्षं कुर्यात्, छन्दोभङ्गं न कारयेत्।

³ See the definition of the *Āryā*.

यस्याः प्रथमे पादे द्वादश मात्रास्तथा तृतीयेऽपि ।

अष्टादश द्वितीये चतुर्थके पञ्चदश सार्थी ॥

(श्रुतबोध, 4th Stanza.)

Classical Sanskrit metres are divided into two kinds⁴ : *Mātrika* and *Varnika*. In the former, the guiding principle is the number of *Mātrās*; in the latter, the quantity of *each* syllable in the line (quarter = *Pāda*). The *Anuṣṭubh* metre, as popularly understood,⁵ comes somewhat between the *Mātrika* and *Varnika* metres. Herein, besides the number of syllables (which is always eight) the quantity of cadence is also fixed. But, as we shall see later on, the quantity of cadence also is not rigid, but admits of alteration in specific circumstances.

(II)

The word *Anuṣṭubh* itself is used in more than one sense. In works on Vedic and Classical Sanskrit Prosody, the word *Anuṣṭubh* is used, not for a *particular* metre, but for the *class* of metres wherein there are four lines (*Pāda* = quarter), each *Pāda* consisting of eight syllables (cf. *Tristubh* and *Jagati*—which also are class-names of metres). The *Vṛtta-ratnākara* mentions seven varieties of the *Anuṣṭubh* (called *Vaktra* also) as *Varnika* metre and eight varieties as *Mātrika* metre.⁶ According to the *Shrutabodha*, the metre, as is clear from its definition, is called the *Śloka* or *Padya*—which is simply a variety of the *Anuṣṭubh* class of metre. But, as if by irony of fate, the words *Śloka* and *Padya* on the one hand and *Anuṣṭubh* on the other interchange their meaning. The meaning of *Anuṣṭubh* was narrowed down with the result that the word *Anuṣṭubh* came to mean, in popular usage,⁷ only a particular variety (*Śloka* or *Padya*) of the *Anuṣṭubh* class metre. The words *Śloka* or *Padya* on the other hand acquired a sense still more general than the sense of the *Anuṣṭubh* class, and came to be used for a stanza of any metre or a metrical composition.⁸

⁴ मात्रावर्णविभेदेन छन्दः ।

(वृत्तरत्नाकर, I—4.)

⁵ See below for its two meanings.

⁶ See वृत्तरत्नाकर (II Ch.). The छन्दोमजरी mentions two varieties of मात्रिक (Ch. V) and six varieties of वर्णिक type (Ch. II).

⁷ Cf. एतद्वक्त्रलक्षणम् । लोके नुष्टुपिति रुपातं तस्याशाक्षरता मता ॥ छन्दोमजरी (V—7.)

⁸ Cf. (i) शब्दसमयोदारान्द्रकृतगद्यपद्य

(Girnar Inscriptions of Rudradāman.)

(ii) पद्यं चतुष्पदं तत्र वृत्तं जातिरिति द्विधा

(हलायुषद्वृत्ति or पिंगलसूत्र, V—i)

(iii) एकवृत्तमयैः पद्यैरवसानेऽन्यवृत्तैः ।

(साहिलर्हण, VI—320.)

The advent of the *Anusṭubh* metre in Classical Sanskrit is associated with the name of *Vālmīki*, who is believed to be the first poet of the Classical period (*Ādikavi*).⁹ It is generally believed, on the basis of this account, that *Vālmīki* was the first to write in the *Anusṭubh* metre, the Vedic stanzas being written in such forgotten metres as *Gāyatrī*, *Uṣṇik*, etc. But, obviously, this is not correct. As we shall see presently, the *Anusṭubh* metre is not infrequently used in Vedic literature. Some of the examples of this metre, as seen in Vedic literature,¹⁰ are metrically as perfect and similar to the *Śloka* or *Padya* (in its narrower sense) as the famous stanza by *Vālmīki*, i.e., *Mā niṣṭā*.... The significance of the above account is that the *Anusṭubh* metre, as seen in the Vedic literature, is elastic and loose, and does not seem to observe in all cases any hard and fast rule, except that there were eight syllables in each quarter. But *Vālmīki*, rigidly following a number of restrictions, made a new departure in the employment of this metre. As in the Vedas these restrictions were not rigidly observed in all cases, the *Anusṭubh* as first employed by *Vālmīki* is called a new metre.¹¹

(III)

With these introductory remarks about the *Anusṭubh* metre, we shall now trace its history in the different periods of Sanskrit literature.

About one-twelfth of the *Rgveda* is composed in the *Anusṭubh* metre.¹² It is more frequent in its later portions and *Upanigads*. But, as we have said before, the *Anusṭubh* metre in Vedic literature is loose and elastic. Its only special feature is that it contains four quarters (*Pāda*) each *Pāda* with eight syllables.¹³ According to Piṅgalāchārya (III-23) it is a *Gāyatri* metre, with an addition of the fourth *Pāda*.¹⁴ There is no restriction as regards the quantity of the syllables. The absence of any rigid restriction will be made clearer, when we see that, in order to have the required number of

⁹ See वाल्मीकिरामायण (I—ii) and उत्तररामवित्त (II—55).

¹⁰ e.g.,

इन्द्रियेभ्यः पराद्यर्थी अर्थेभ्यश्च परं मनः ।

मनसस्तु परा बुद्धिंदुरेतमा महान् परः ॥

(कठोपनिषत्, I—III—10.)

¹¹ नृतनश्छन्दसामवतारः (उत्तरचरि., II Act.)

¹² Macdonell, *History of Sanskrit Literature*, pp. 56-7.

¹³ द्वात्रिशादक्षरानुष्टुप् चत्वारोऽष्टाक्षराः समाः ।

(ऋग्प्रतिशास्त्रम्, xvi—17.)

¹⁴ Cf. also अनुष्टुप्तुष्टोभनात् । गायत्रीमेव त्रिपदां सर्ती चतुर्थेन पादेनानुष्टोभति ।

(यास्क in निरुक्त देवतकाण्ड.)

syllables in each quarter, we have sometimes to pronounce a long vowel as two vowels (*Nām* as *Naām*), insert a vocalic sound in a conjunct consonant (*Rudra* as *Rudara*) and sometimes to slur over a vowel.¹⁶ Even this restriction of having four quarters, each with eight syllables, is not adhered to in some cases. Considering other varieties of the metre, as given in the *Rk-prātiśākhya* (xvi-27/30) and *Pingala-chhandah-sūtra* (III-23/5), the only principle universally followed is that of having 32 syllables. This number 32 can be arrived at by lessening the number of quarters and increasing the number of syllables in the lines, e.g., according to *Pingala-sūtra* (III-28), an *Anuṣṭubh* may contain three *Pādas* and 32 syllables (= 8 + 12 + 12). Sometimes the number of syllables in a line is lessened and the number of lines increased [e.g., 5 + 5 + 5 + 5 + 5 + 6 (? 7) = 32 syllables] (*Rk-prātiśākhya*, xvi-30). In short the *Anuṣṭubh* metre in the early Vedic literature appears 'in a chaotic condition'.

(IV)

But, as time passed, a sort of rhythm was introduced by observing some restrictions as regards the cadence of a line. The quantity of the first four syllables is still unfixed but a tendency is seen to have the last four syllables as — ~, i.e., the iambic end. In *Rgveda* we have examples¹⁷ where all the four quarters have an iambic end. But in the later hymns of the *Rgveda* a further development is seen gradually coming in the use of the *Anuṣṭubh* metre. In early portions all the four quarters (*Pādas*) of the metre were alike and, as we have seen above, they had the same kind of end. But now a tendency is seen to differentiate between the even and odd quarters (*Sama* and *Vīṣama*). The even quarters have more regularly an iambic end, but the odd quarters are given a trochaic ending, ~ ~. Herein lies the beginning of that special characteristic of the epic *Anuṣṭubh* (= *Śloka*), used in the later literature, according to which the 7th syllable in the 2nd and 4th quarters must be invariably short.

This innovated form of the *Anuṣṭubh* metre (epic *Śloka*) becomes a predominant metre in the Epics, though traces of the Vedic archaism survive in the *Mahābhārata*.¹⁸ Metrically the *Anuṣṭubh* of the *Rāmāyaṇa* is more perfect, and follows more strictly the newly introduced differentiation between the odd and even quarters (*Pāda*).¹⁹ The famous stanza of

¹⁶ See Macdonell, *Vedic Grammar for Students*, p. 487.

¹⁷ e.g., क इमं दशभिर्मम्, इन्द्रं कीणाति भेतुभिः ।

यदा तु ग्राणि जळ्यन्त् अथैन मे पुनर्देवत् ।

(*Rgveda* IV-24-10.)

¹⁸ See Hopkins, *The Great Epic of India*, pp. 219-41. For examples, see pp. 448-58.

¹⁹ *Ibid.*, p. 237.

Vālmīki, said to be the first *Anusṭubh* stanza in the Classical literature, observes the restrictions about the cadence of the odd and even quarters. The metrical scanning¹⁹ of the stanza

s | s s | ss s
 मा नि षा द प्रतिष्ठां त्व-
 || s s | s | s
 म ग मः शाश्वतीः समाः ।
 s s | | sss
 यत्कौशभिथुनादेक-
 || s s s s
 मवधीः काममेहितम् ॥

clearly shows that the quantity of the first four syllables is *indifferent*, the fifth is *short* and the sixth is *long* in all the *pādas*, and *odd* and *even* *pādas* have the *seventh* syllable *long* and *short* respectively. This standardized form of the metre gave rise to the definition,²⁰

षोके षष्ठे गुरु हेयं सर्वत्र लघु पश्चमम् ।
 द्विचतुष्पादयोर्हस्तं सप्तमं शीर्षमन्ययोः ॥

(V)

In the post-Epic period the *Anusṭubh* metre has not got the same predominant position as in the Epic period. Later poets take delight in handling bigger metres (such as *Vāmisastha*, *Mālinī*, etc.) and seem to regard the *Anusṭubh* metre as too short to express elaborately a poetic idea. Famous poets of the *Kāvya period* use the *Anusṭubh* metre very infrequently. *Bhāravi*, *Māgha* and *Śrī-Harṣa* do not devote more than two cantos to the *Anusṭubh* metre, and even that was, perhaps, to show their versatile genius in handling all Sanskrit metres.²¹ The *Anusṭubh* metre is used in scientific and philosophical works but has not found much favour with the *Kāvya*-writers. The same remark is true of Prakrit literature (including *Pāli* literature) also. In its early period we have the *Gāthā*—the prototype of the *Anusṭubh* with its archaism—as the predominant metre. But afterwards the *Āryā* metre comes into prominence for Prakrit versification (e.g., Häla's *Sattasai*). Gradually, the bigger metres of Sanskrit appear in Prakrit also. Rājaśekhara, a famous critic and poet, shows, in the *Karpūra-Mañjari*, his

¹⁹ The method of scanning as followed by Western scholars is u (for short = लघु) and - (for long = गुरु). We follow here the Indian tradition; | (for लघु) and s (for गुरु) cf. वृत्तरकाकरः—ग् वको ज्ञेयोऽन्योमाश्रिको ल् कर्त्तुः । (1—9).

²⁰ शुतबोधे (10th St.).

²¹ In भारवि and माघ, one of the two cantoes in the अनुष्टुभ् metre is used for showing poetic skill in चित्रबन्धकाव्य.

masterly skill in handling almost all the big metres in Prakrit. Thus we see that in the later Classical period, writing in the *Anuṣṭubh* metre was not in vogue with that frequency which it enjoyed in the Epic period.

(VI)

After this rapid survey of the history of the *Anuṣṭubh* metre, we shall now examine its varieties as current in post-Epic Sanskrit. As stated above, the writers on Sanskrit Prosody treat this metre as *Varnīka* (fixed syllabic) and *Mātrika* (mora-metre). Of its eight *Varnīka* varieties as given in the *Vṛtta-ratnākara*,

(i) *Vidyunmālā* has all the eight syllables long, e.g.,

ओ मो गो गो विश्वन्माला

(ii) *Samānikā* has alternately long and short syllables, e.g.,

॒ ॑ ॒ ॑ ॒ ॑ ॒ ॑
रा म रा म रा म रा म

(iii) *Pramāṇikā* has alternately short and long syllables, e.g.,

॑ ॒ ॑ ॒ ॑ ॒ ॑ ॒
इ रे ह रे ह रे ह रे

The above illustrations clearly indicate the artificial character of the *Varnīka* types of the *Anuṣṭubh* metre—which is *only a fixed combination* of eight syllables in a particular way and does not admit of *any freedom* about changing a short syllable for a long one, or *vice versa*. But the historical *Anuṣṭubh*, as we have seen above in the different periods of Sanskrit literature, allows freedom as regards the first four syllables of a line.²² It is only about the *later four* syllables that some restrictions are observed. Therefore, the *Mātrika* or *Vaktra* type of the *Anuṣṭubh* should be considered in the treatment of the historical *Anuṣṭubh*.

One variety of the *Mātrika Anuṣṭubh* is known as *Śloka* or *Padya*, after the type of Vālmīki's famous stanza quoted above. Herein the fifth syllable is *always* short and sixth *always* long, the seventh syllable is long in *odd* quarters and short in *even* quarters. This variety is the standardized type of the *Anuṣṭubh* metre, and is most frequently used in the Classical Sanskrit literature. But this does not mean that this is the only type prevalent; occasionally there are seen exceptions also, e.g.,

²² Cf. छन्दोमशी (V—6):—

पञ्चमं लघुसर्वत्र

सप्तमं द्विचतुर्थयोः ।

गुरु चष्टुं च आनीयात्

शेषस्वनियमो भवतः ॥

(i) We have the fifth syllable long,

। s । s s s
फ ला नु मे या: प्रा र स्मा:

(*Raghuvamśa*, I-20.)

and (ii) Sometimes, we have the sixth syllable short,

s । s s t । । s
भी म का न्ते नृ प गु णः

(*Ibid.*, I-16.)

The two varieties noted as exceptions above are termed *Vipulā* and *Chapalā* in the *Pingala-sūtra*.²³ In the *Vipulā* variety, the author says, there is a *Nagana* (|||) after the fourth syllable, i.e., there are three successive short syllables after the fourth; in the *Chapalā* variety, we are told, there is a *Bhagana* (S|), *Ragana* (S|S), *Nagana* (|||), *Tagana* (SS|) or *Magana* (SSS) following the fourth syllable. The following are the examples given there :—

Chapalā.—*Nagana* (|||) after the fourth syllable.

क्षीयमाणा ग्र द श ना

Vipulā.—

(i) *Bhagana* (S|) after the fourth syllable.

इं सखे च ग्र शु खी

(ii) *Ragana* (S|S) after the fourth syllable.

लक्ष्मीपति लो क ना थम्

(iii) *Nagana* (|||) after the fourth syllable.

गस्या विभा ति र म णी

(iv) *Tagana* (SS|) after the fourth syllable.

वन्द देवं सो मे श रम्

(v) *Magana* (SSS) after the fourth syllable.

सर्वातिर लक्ष का च ष्यम्

A close perusal of the above varieties and their examples shows that the third variety of *Vipulā* (*Nagana*) is the same as the *Chapalā* variety

²³ (V-18, 19.)

वपलाऽऽयुजो न् ।

and

ओ न्तो च ।

and need not be mentioned separately, that the fourth variety, *Tagaṇa-Vipulā* is very unusual and does not figure in the *Kāvya* literature. Besides, there is no mention of the specific conditions which are invariably present when we violate the restrictions to be observed in the *Sloka* (*Anuṣṭubh* metre).

(VII)

We propose to give below, in the form of a comment on the definition of the metre, a comprehensive statement detailing the exceptional varieties of the *Sloka* (*Anuṣṭubh*) metre with their peculiar conditions—as found in the post-Epic literature :—

- (i) The metre, consisting of four quarters with eight syllables in each, is of an *Ardhasama* type, i.e., the first quarter agrees with the third and the second with the fourth.
- (ii) If the second syllable is short, the third *must* be long. That is, the *first three* syllables cannot be successively short.
- (iii) The even quarters *always* have the last four syllables alternately short and long (as | s | s). That is, the *Sama-pādas* always conform to the restrictions of the *Sloka* metre.²⁴

It is only in the *odd quarters* (*Viṣama-pādas*) that the following exceptions are seen :—

- (iv) The fifth syllable is usually short, *but* it may be *long*, in the following conditions :
 - (a) When it is preceded by a long one, i.e., when the fourth syllable is long.
 - (b) In the odd quarters only.

[see (iii) above.]

- (v) The sixth syllable is usually long, *but* it may be *short* in the following conditions :
 - (a) when *at least* two *long* syllables occur in the *first four* syllables.
 - (b) In the odd quarters only.

[See (iii) above.]

²⁴ As laid down in the following :

पञ्चमं लघु सर्वत्र
सप्तमं द्वितीयुर्थयोः
षष्ठं गुरु विजानीयात्
एतत्पदास्य लक्षणम् ॥

(अनुष्टुप्पाद, 11th Stanza.)

It should be noted here that if we interpret the 3rd line of this stanza along with the 2nd, the definition is *always* true of the *even Sama quarters*. The definition given in Stanza 10, quoted before, admits of exceptions (see below).

(vi) As will be clear from the chart given below,

- (a) In *many* cases, if the fifth syllable is long, the sixth and the seventh are short and thus *all the rules* about the fifth, sixth and the seventh syllables are violated.
- (b) If the sixth syllable is short, the seventh is *always²⁵* short. That is, the rules about the sixth and the seventh syllables are violated *together*.

(VIII)

The following chart is prepared from a close scrutiny of all the *Anuṣṭubh (Śloka) stanzas* in the *Kāvyas* of *Aśvaghoṣa*, *Kālidāsa*, *Bhāravi*, *Māgha* and *Śrī Harṣa*. So it can approximately represent the treatment of the *Anuṣṭubh* metre in the *Kāvya* period. Appendix B shows its treatment in the well-known *six* dramas of Sanskrit literature.

Abbreviations (used in the chart) :—

A stands for the violation of the rule that the fifth syllable must be short.

B stands for the violation of the rule that the sixth syllable must be long.

C stands for the violation of the rule that the seventh syllable in the odd quarters must be long.

²⁵ One notable exception is,

‘इदं तु ते भक्तिनन्दं’ (*कुमारसंभव*, VI—73.)

The other exception,

कलोलैरुद्धतरैर्वा (चीनं तटमभिदुत्तेः [*कुमारसंभव*, X—34.]

is hopelessly defective and may not be from the genuine *Kumara-sambhava*, as it occurs in the 10th canto.

The word वीचीनम् stands, according to the commentator, for अवीचीनम्— a queer case! Besides the word वीचीनम्, being split in two parts, is a clear proof of inferior workmanship.

The three exceptions, found in *Māgha* (see below, under example No. XV) are examples of *Chitra-bandha* types of poetry and therefore should not be considered seriously.

CHART (about odd quarters—*Viṣama-pādas*—only).

Author	Total No. of odd quarters	No. of exceptional cases	No. of examples given in Appendix A
1. <i>Aśvaghoṣa</i> (a) <i>Saundarananda</i>	.. 768	6— <i>A</i> only 6— <i>A B C</i> 73— <i>B C</i>	1 2 3
(b) <i>Buddha-charita</i>	.. 526	8— <i>A</i> only 5— <i>A B C</i> 42— <i>B C</i>	4 5 6
2. <i>Kālidāsa</i> (a) <i>Kumāra-saṃbhava</i>	.. 530	12— <i>A</i> only 8— <i>A B C</i> 16— <i>B C</i> 2— <i>A B</i> 1— <i>B</i> only	I II III IV V
(b) <i>Raghuvamśa</i>	.. 732	23— <i>A</i> only 10— <i>A B C</i> 22— <i>B C</i>	VI VII VIII
3. <i>Bhāravi</i>	.. 250	2— <i>A</i> only 7— <i>A B C</i> 14— <i>B C</i>	IX X XI
4. <i>Māgha</i>	.. 464	35— <i>A</i> only 42— <i>A B C</i> 44— <i>B C</i> 3— <i>A B</i>	XII XIII XIV XV
5. <i>Śri Harṣa</i>	.. 752	2— <i>A</i> only 1— <i>B C</i>	XVI XVII

N.B.—The following points can be noted by a close study of the above chart :—

(i) The percentage of the departure from the normal form is :

Aśvaghoṣa	..	9%
Kālidāsa	..	7%
Bhāravi ..	..	9%
Māgha ..	..	27%
Śri Harṣa	..	.4%

(ii) Śri Harṣa has comparatively very few exceptions.

(iii) Māgha has comparatively a very high number of exceptions. Is it due to his being a Westerner? (See Jacobi, *Indian Studien*, Vol. XVII, p. 444, referred to by Hopkins, *The Great Epic of India*, p. 224). The three exceptions, wherein the rules *A* & *B* are violated by Māgha, occur in the *Chitra-bandha* type of poetry (see below, example No. XV), and therefore should not be taken as normal departures.

(iv) With Bhāravi, the exception of the rule (*A* only) is really non-existent.

[See example No. IX. The first (a) can be taken as a 'Puranic licence' where *i*, though long as coming before the conjunct consonant *Sw*, should be taken as short. The other example is from the *Chitra-bandha* type of poetry.]

(v) The example No. V (from the *Kumāra-sambhava*) does not occur in the first 8 cantos. This fact, coupled with a further evidence of its poor workmanship (see before, footnote.²⁶), furnishes an additional argument for treating the later nine cantos of the *Kumāra-sambhava* as spurious. Cf. also the fact that the *Raghuvamśa* contains no such exceptions.

(vi) The *Buddha-charita* (in its genuine 13 cantos) devotes only three cantos to the *Anuṣṭubh* metre, while *Saundarananda* has as many as seven cantos in this metre. This fact coupled with a consideration of the more refined and poetic style of the *Buddha-charita* makes it probable that the *Saundarananda* is an earlier work of the poet, though the incompleteness of the *Buddha-charita* renders the inference less conclusive.

APPENDIX A.
(See Column 4 in the Chart above.)

No.	EXAMPLES	REFERENCES
1	यामे तृतीये चोत्थाय	सौन्दरनन्द—(XIV-34)
2	अस्यन्तदुःखोपरमम्	,, (XII-23)
3	राज्यं दीक्षामिव वहन्	,, (II-6)
4	यतश्च सुद्धिस्तत्रैव	बुद्धचरित—(XII-85)
5	विशुज्यमेऽपि तरौ	,, (IV-61)
6	नावजानामि विषयान्	,, (IV-85)
I	तस्मिन्नुपायाः सर्वे नः	कुमारसम्भव—(II-48)
II	पर्याकुलत्वान्मनसः	,, (II-25)
III	इवः सङ्कृतकठिनः	,, (II-11)
IV	इदं तु ते भक्तिनम्	,, (VI-73)
V	कलैलैदृष्टतरैर्वा (चीनं तटमभिष्ठुतैः)	,, (X-34)
VI	फलानुमेयाः प्रारम्भाः	रघुवंश—(I-20)
VII	सुतां तदीयां सुरभेः	,, (I-81)
VIII	भीमकान्तैर्दृपशुणैः	,, (I-16)
IX(a)	तिरस्करोति स्वातन्त्र्यम्	किरातार्जुनीय—(XI-77)
(b)	ननो ननुज्ञो नुज्ञोनो	(XV-14)
	(एकाक्षरपाद)	
X	आपातरम्या विषयाः	,, (XI-12)
XI	युक्तः प्रमाणसि हितात्	,, (XI-29)
XII	यियक्षमाणेनाहृतः	शिष्मुपालवध—(II-1)
XIII	जाउचल्यमाना जगतः	,, (II-3)
XIV	मम तावन्यतमिदम्	,, (II-12)
XV(a)	सकार नाना रकास	,, (XIX-27)
(b)	रसाह वावा हसार	,, "
(c)	(सर्वतोभद्र-चित्रबन्ध)	
	परानिहा हानिराप	(XIX-40)
	(प्रतिलोमयमक)	
XVI	कि न प्रचण्डात्पात्पण्ड	नैषधीयचरित—(XVII-102)
XVII	कृपाणीभूय हृदयम्	(XVI-107)

APPENDIX B.

Work	No. of odd quarters	No. of exceptional cases	Examples
1. <i>Mālavikāgnimitra</i>	.. 34	1—A only 2—B C	इमां परीसुदुर्जाते (Act V) महासारप्रसवयोः (Act I)
2. <i>Vikramorvāsiya</i>	.. 60	1—A only 3—B C 1—A B C	अनन्यनारीसामान्यः (Act III) अयं त्वा पृच्छति रथी (Act IV) वचोभिराशाजननैः (Act III)
3. <i>Abhijñānaśākuntala</i>	.. 72	2—A only 1—B C 1—A B C	दिनावसाने छायेष (Act III) हुक्करेण्व धनुषः (Act III) प्रकीड़तुं सिहशिशुम् (Act VII)
4. <i>Mahāviracharitā</i>	.. 260	1—A only 2—B C 6—A B C 5—A B	तेषामिदानी दायादः (Act I) उत्पत्तिर्देवयजनात् (Act I) संज्ञयते वत्सतरी (Act III) संस्त्रयन्ते विप्रकर्षात् (Act VII)
5. <i>Uttararāma-charita</i>	.. 160	4—A only 18—B C	इदं कविभ्यः पूर्वभ्यः (Act I) विद्याकल्पेन मरुता (Act VI)
6. <i>Mālatīmādhava</i>	.. 22	1—B C 1—A B C	गुणः सता न ममकः (Act I) यथार्थनामा भगवान् (Act I)

N.B.—The fact that Bhavabhūti makes less frequent use of the *Anuṣṭubh* metre and turns his attention to the *Prakarṇa* type of dramatic literature in the *Mālatī-Mādhava*, may indicate it to be the last work of the dramatist.

THE NATURE OF RELIGIOUS TRUTH.

BY D. G. MOSES, M.A.,
Hislop College, Nagpur.

IN the recent past religion has had to face a number of formidable attacks. Of these, the two major disturbing influences have come from the development of the physical and natural sciences and the almost phenomenal growth of empirical psychology. The attack of science has not been a direct or frontal one but indirect, and therefore the more insidious and dangerous. The extraordinary success of science in its attempts to understand the nature of the world in which we live, its neat plotting out of the laws and its unerring predictions based on its intimate knowledge, have produced in the minds of men the growing impression that the scientific way of knowing is the only avenue to truth, and that all other ways of knowledge are the subjective concoctions of minds that have lost touch with objectivity and reality. The application of empirical psychology to the merciless dissection of religious consciousness has resulted in the same conclusion. It is boldly claimed, if not by all, at least by a number of eminent psychologists, that all the wealth and variety of religious phenomena could be, without any remainder, explained in terms of psychological and social causes and effects, and that it is not necessary to assume the existence of an objectively existing cosmic reality. In support of this point, let me quote a few statements from the writing of Leuba, who is typical of the writers we are thinking of. In his *Psychological Study of Religion* Leuba writes : "If there were extra-human sources of knowledge and superhuman sources of human power, their existence should, it seems, have become increasingly evident. Yet the converse is apparently true ; the supernatural world of the savage has become a natural world to civilized man ; the miraculous of yesterday is the explicable of to-day. In religious lives accessible to psychological investigation nothing requiring the admission of superhuman influences has been found. There is nothing, for example, in the life of the great Spanish mystic whose celebrity is being renewed by contemporary psychologists—not a desire, not a feeling, not a thought, not a vision, not an illumination—that can make us seriously look to transcendent causes."¹ Again, in another place Leuba says, "The truth of the matter may be put in this way : God is not known ; He is not understood ; He is used, used a good deal

¹ *A Psychological Study of Religion*, p. 272.

and with an admirable disregard of logical consistency, sometimes as moral support, sometimes as friend, sometimes as an object of love."³ Two important conclusions are affirmed by Leuba in these statements. The first is, that the claim of religion to have as its fundamental basis an independently existing objective reality is an entirely false claim and the second, that the real problem of religion is not whether the idea of God is true, but whether it is useful. In other words, the question of validity is an irrelevant question for religion ; what is of supreme significance is the problem of value or practical usefulness.

Another important critic of religion is Freud. In his book on "The Future of an Illusion," he tries to show that belief in God is simply the working out of an infantile father-complex. The idea of God is an illusion which man in the immaturity of his thought has created to defend himself against the crushing supremacy of nature. When we closely study Freud's book, we realise that however much "The Future of an Illusion" is a psychological analysis of the origin and growth of the idea of God, it is ultimately based on an unreasoned assumption that the truth about reality can only be achieved by science. For instance, he says : "The riddles of the universe only reveal themselves slowly to our enquiry ; but scientific work is our only way to the knowledge of external reality....It is merely illusion to expect anything from intuition or trance...."⁴ Again, he writes : "The more the fruits of knowledge become accessible to men, the more widespread is the decline of religious belief, at first only of the obsolete and objectionable expressions of the same, then of its fundamental assumptions also."⁵ And lastly, "We believe that it is possible for scientific work to discover something about the reality of the world through which we can increase our power and according to which we can regulate our life".... "Science is no illusion, but it would be an illusion to suppose that we could get anywhere else what it cannot give us."⁶

Both these passages and the passages we have quoted from Leuba indicate clearly that for these thinkers religion has nothing to do with truth, that it is not in the nature of religious consciousness to contribute anything at all towards the understanding of the nature of ultimate reality. The essence of religion is exhausted in its functional utility in the struggle for existence. Now, this reading of the nature of religious consciousness

³ Quoted by Ames, *Psychology of Religious Experience*, p. 314.

⁴ *The Future of an Illusion*, p. 56.

⁵ *Ibid.*, p. 68.

⁶ *Ibid.*, p. 95.

seems to be entirely invalid. An impartial study of the historical birth and growth of religion unmistakably reveals, that the cognitive element has never been absent in all its chequered course, though, to be sure, it was none too developed in its original beginnings. In the religion of the primitive man the predominating elements were the emotive and volitional, but this is not to say that the cognitive element was entirely absent. It was there, but in a germinal form. And as religion has grown with the development of man's psychical nature, the element of interest in truth or apprehension of reality has also grown, till to-day for the modern man to accept a religion that could not prove its own truth is unthinkable.

While the indirect attack of science on religion, and the direct attack of psychology, have been steadily growing in their intensity and force, the defence of religion from the point of view of rationalistic thought has steadily decreased. As a matter of fact, it was Kant who laid the axe at the root of the rationalistic defence of religion when he showed that all the so-called arguments for the existence of God were not really as logically impeccable as they were thought to be. And ever after his time the tendency has grown not to found our assurance of the existence of God on philosophical speculation or rationalistic arguments. But while this tendency has grown, it has by no means crystallised into a well-worked out methodology of religious knowledge. As an illustration of this tendency not to lose the company of rationalistic argument, one might quote the way in which Professor Macintosh of Yale University establishes the existence of God in the three-cornered discussion that took place in the *Christian Century*.⁶ The central argument of Prof. Macintosh, as he himself acknowledges, consists in the argument of religious experience; but instead of putting it in the very forefront of his articles and starting off with it, he introduces it only in the closing papers. In the first few articles he follows the cosmological approach and attempts to show that a study of nature reveals or, at least, does not make impossible a belief in personal cosmic power. But it is in no way different from the traditional cosmological argument for the existence of God and, riddled with all its historical limitations, it simply does not make any impression on the atheistic Prof. Max Carl Otto. The fact of the whole matter is, belief in God is not a minimum belief but a maximum belief, committing us to a number of other beliefs that are congruent with and consequent upon this belief. If a person already believed in the existence of God, then arguments based on the facts of nature or history have

⁶ *The Christian Century (A Journal of Religion)*, Chicago, 1932.
"Is there a God? A conversation."

confirmatory evidence, but without this preliminary belief they are quite useless and prove nothing. Prof. Norman Kemp Smith has worked out this idea somewhat fully in his lecture at the 1931 Annual Meeting of the British Academy under the title, "Is Divine Existence Credible?" He says, almost at the beginning of his enquiry, "One main reason why the situation has been thus falsely represented is, (he is referring to the frequent assertion made in religious circles that belief in God is easy) I think, the continuing influence of the eighteenth century view that the existence of God can be demonstrated from the facts of nature and history—the actual situation being—is it not?—that the existence of God cannot be demonstrated in any such manner. If we come to nature and to history with an antecedent belief in the existence of God, they may be shown to be, conceivably, not incompatible with such belief, but they never suffice to demonstrate it."⁷

It might appear from what has been said so far that religion is doomed. If the attack has become more formidable and the defence has concomitantly become weaker, then, is it not fair to conclude that the destruction of religion is well-nigh complete? Our answer is, No; there is still another way and a truer way of defending religion. If we could establish that the boasted scientific kind of knowledge is not the only type of knowledge, and that we have another type of knowledge which we might call intuitive or direct knowledge and that this is just as much trustworthy as the former, then religion would get a new and more successful line of defence and justification. In other words, the whole problem narrows down to this one major issue, the reality of intuitive knowledge and the conditions of its validity. To this we will now turn.

Before we set forth what might be called an epistemological theory of intuitional knowledge, let us compare and contrast intellectual and intuitive knowledge. It is in science that intellect plays the most important part, and when we analyse scientific knowledge we come to know some of its common characteristics. To attain a scientific knowledge of an object, we have to do three things: In the first place, we have to classify the object, secondly, we have to analyse the object and thirdly, we have to explain the object. Classification consists in bringing an object under a general class characterised by some common properties. Analysis consists in splitting the object into its various parts so as to lay bare all its qualities. And explanation consists in relating the object to another object or another group of objects. Of course, there are various kinds of explanations, like, explaining a fact by another fact as cause and effect, or, a fact as a particular instance

⁷ Norman Kemp Smith, *Is Divine Existence Credible?*, p. 5.

of a law, or, a law by a more universal law. But the purpose of scientific explanation is to see that a fact does not stand out isolated and unrelated but is somehow assimilated or related to something else.

From this rough description of the method of science, it would follow that scientific knowledge is confined to the abstract and the general. If there were objects that were unique and individual they would naturally escape the meshes of scientific knowledge. Prof. Hocking summarises the characteristics of scientific or intellectual knowledge under the following heads⁸:—

1. Intellectual knowledge is external. "The concept is the typical achievement of intellectual knowledge. But one may see likenesses and make concepts without getting any intimate sense of the life of the object."
2. Intellectual knowledge is relative to the interest of our enquiry.
3. Intellectual knowledge represents its object as static and therefore dead. It was the merit of Bergson to have first brought out this point in his *Creative Evolution*.
4. Intellectual knowledge is abstract and partial.
5. In sum, intellect analyses and cannot recompose. It can dismember the organism but it cannot from the parts restore the living whole.

In direct contrast to all these is the knowledge we get by intuition. Intuition is integral knowing, the immediate penetrating to the heart of reality. According to Bergson, intuition leads us to the very inwardness of life, and succeeds in holding in a firm and final embrace reality itself. He defines it in his *Introduction to Metaphysics* as follows: "By intuition is meant the kind of intellectual sympathy by which one places oneself within an object in order to coincide with what is unique in it and consequently inexpressible."⁹ Intellect is for him only a practical instrument in the hand of man and its special province is in the realm of unorganised matter. Because its function is utilitarian it is never able to carry us to reality. Especially when it deals with time, self and the evolutionary process, all of them dynamic and mobile, it falsifies their real nature by congealing them into static entities. Bergson has been criticised by a number of thinkers as making a too radical distinction between intellect and intuition. The criticism has not been unjust. But there are a number of passages both in his *Introduction to Metaphysics* and in his *Creative Evolution* that may

⁸ W. E. Hocking, *Types of Philosophy*, pp. 191, 192, 193.

⁹ *An Introduction to Metaphysics*, p. 7.

be adduced to show that that was not his real intention. For instance, in his *Introduction to Metaphysics* he says, "We do not obtain an intuition from reality—that is, an intellectual sympathy with the most intimate part of it—unless we have won its confidence by a long fellowship with its superficial manifestations".¹⁰ He illustrates this with reference to a literary composition and points out how before the brilliant idea flashes in the mind, there must be a patient study of the materials and a painful effort to place oneself in the heart of the subject. Again, in his *Creative Evolution* he writes, "Dialectic is necessary to put intuition to the proof, necessary also in order that intuition should break itself up into concepts and so be propagated to other men; but all it does, often enough, is to develop the result of that intuition which transcends it".¹¹ These passages are quoted, not to establish that Bergson does not in many places give the impression of a too radical and clear-cut distinction between intellect and intuition, but merely to suggest that possibly his real intention was not so definitely dichotomous.

Let us consider briefly some of the departments in which intuition plays an important part. In the first place, the basis of all knowledge which is ordinarily called an assumption is really one of the major intuitions of life. That reality is knowable, and knowable by our minds, is a fundamental assumption of thought. Being itself at the basis of all thought and rationality, it is incapable of any logical or rational demonstration. Our growing success in the enterprise of knowledge may confirm our intuition, but it can never prove it in the scientific sense of the term proof. Secondly, all the illuminating and creative hypotheses of science have been flashes of intuition rather than rationally synthesised conceptions. In fact, what distinguishes a really first-rate scientist from the second and third-rate plodding intellectuals is the ability of the former to strike upon the bright idea, that seems to come from nowhere, but which, when it has come, is able to explain and set in order a whole wealth of observed facts. So that one might say that the discovery of a scientific hypothesis is more like an artistic creation than a rational colligation. Tyndall says of Faraday's electro-magnetic speculations: "Amid much that is entangled and dark, we have flashes of wondrous insight, which appear less the product of reasoning than revelation."¹² And Henry Poincaré says in his work on "Science and Method," "It may appear surprising that sensibility should be introduced in connection with mathematical demonstrations, which, it would seem, can only

¹⁰ *An Introduction to Metaphysics*, p. 91.

¹¹ *Creative Evolution*, p. 238.

¹² Quoted by S. Radhakrishnan in his *Idealistic View of Life*, p. 176.

interest the intellect. But not if we bear in mind the feeling of mathematical beauty, of the harmony of numbers and forms of geometric elegance. It is a real aesthetic feeling, that all true mathematicians recognise..... The useful combinations are precisely the most beautiful."¹³

Again, we find it necessary to postulate the operation of this immediate, direct insight in the realm of morals. Duty is an uniquely individual moral act. It is the one action that ought to be done in a given complex of circumstances that would best bring out the loyalty of the individual to his whole system of ideals. The fact that it is thus uniquely individual does not destroy its equally important other characteristic of universality. As Dr. Hogg of the Madras Christian College puts it : " And yet with all this individual definiteness, duty is always universal. Precisely by means of the individuality of its adaptation to persons and occasions it remains identical in spirit for all men at all times."¹⁴ Duty being thus uniquely individual, it is impossible to deduce it by any rational process from a system of moral laws or a pattern of conduct. A law is by nature a universal, is the expression of a class of actions, and, therefore, while it may lend light, set forth before the moral agent the accumulated and generalised wisdom of the race, it can never yield an absolutely binding immediate duty. To quote again from Dr. Hogg : " No matter how elaborate be the preparatory processes of analysis and comparison which may be required, an act of genuine or autonomous moral judgment is, in the last resort, the expression of an immediate, intuitive insight into the individually fitting. Like all judgment it is liable to error ; but true judgment about individual duty can never occur at all, unless it is at least possible for the human mind to rise to an intuition of the uniquely individual demand which in a given situation is made upon it by the moral universal."¹⁵

The necessity of this creative insight in the world of morality becomes all the more evident when we remember the long array of moral heroes who have trailed new paths for their fellowmen. These are the men who with their eagle eye could see higher ideals and greater endeavours and, because of the clearness and assurance with which they saw them, could risk their own lives in order to bring them to pass. It would be impossible to explain these new acquisitions of moral insights except with reference to intuition.

Another important realm in which this faculty of direct insight or integral knowing plays a fundamental part is the world of art. All art,

¹³ *Science and Method*, p. 58.

¹⁴ A. G. Hogg, *Redemption from this World*, p. 221.

¹⁵ *Ibid.*, p. 223.

whether poetry, music, painting or sculpture, depends ultimately on vision. Vision in the world of art is the counterpart of the illuminating hypothesis in the world of science. Whatever preliminary mental activity may characterise the poet's or the musician's preparation, the moment of vision is a sudden emergence in his consciousness ; and it is this inspired moment, in which he saw the unwritten insight and the unheard melody, that the poet or the artist tries to translate in words or music. Modern psychology attempts to explain poetry as only a reaction to an environment, as something that can easily be accounted for by historical and social factors, as nothing more than rhythmic song, in short, as something that can very neatly be brought under the magical formula of S—R. But if poetry and music are only what the anthropologists and psycho-analysts explain them to be, how can we ever distinguish between Shakespeare and a clever undergraduate versifier ?

Some people are willing to admit that the genius of the artist is what determines the character of his work, but refuse to admit that art could have anything to do with truth. They say, for example, in poetry the characters of a poet or a dramatist are fictitious creations and as such do not claim any objective truth. But such an analysis misses the essential feature of poetry. If we ask what is a poem, or what is the meaning of a poem, the answer is not the particular subject of a poem or the language of a poem but the poem itself. As Prof. Bradley puts it in his lecture on "Poetry for Poetry's Sake," "Pure poetry is not the decoration of a preconceived and clearly defined matter, it springs from the creative impulse of a vague imaginative world pressing for development and definition. If the poet already knew exactly what he meant to say, why should he write the poem ? The poem would in fact be already written. For only its completion can reveal even to him exactly what he wanted. When he began and while he was at work, he did not possess his meaning, it possessed him. And this is the reason why such poems strike us as creations, not manufactures, and have the magical effect which mere decoration cannot produce."¹⁶ So that by poetic truth we do not mean the truth of the scientific or philosophic or religious propositions that may be expressed in a poem or drama. For they do not constitute the poem ; they are the devitalised remnants of the dissecting operation of the intellect. The poem is simply the poetic experience, and we do not really understand a poem until we are able to recapture with the help of the poet or our own imaginative effort this original poetic

¹⁶ A. C. Bradley, *Oxford Lectures on Poetry*, Lecture on "Poetry for Poetry's Sake" pp. 23, 24.

experience. The distinctive insight that is the poet's, and which is embodied in his poem or drama, becomes ours only when we enter into his experience and basal mood. When we are thus able to enter into his experience there is a sudden accession of light and meaning in our minds, and not only does the reality that the poet sings about become illuminated but also other aspects and parts of reality become intelligible. For example, when we have first appreciated Shakespeare's "Hamlet", which is purely an imaginative creation, we find because of that very reason we are better able to appreciate and understand real people.

There is still another world in which this power of intuition is absolutely essential and that is the world of personal and social relations. Our knowledge of our own self is always a direct intuition. When we try to know our self by means of empirical observation, as Hume pointed out long ago, we never catch it. It is only a particular mental state that we become aware of. So that even Descartes, who started on a crusade of doubt, was forced to come to a halt on this indubitable and basic certainty of the self. Similarly, our knowledge of other finite selves is also the result of immediate intuition.

We shall now consider, briefly, the relation between intellect and intuition. Perhaps, this whole discussion of the problem of intuition may be regarded as the useless reopening of a question that was once for all solved in the nineteenth century. It might be asked, whether it was not this very belief in an inexplicable, innate ability to perceive the truth that was put forward by such men as Shaftesbury, Hutcheson, and a host of other ethical philosophers who were known as the ethical intuitionists. But there are important differences between that intuitionism and our own claim for a direct intuition of the truth. According to the ethical intuitionism, intuition was a mysterious, universal, unerring faculty standing in direct antithesis to reason. It was put forward to explain the abstract moral standards and maxims of morality. There are a number of differences between this view of intuition and the one we are maintaining. To mention only a few; the sharp contrast that they established between intellect and reason and intuition does not hold good; secondly, intuition for us is not an inerrant faculty; thirdly, it is not so much the source of the abstract moral standards of a community as it is the power by which we perceive the appropriate individualisation of an abstract moral law in a particular moral situation.

It is necessary to be quite clear on the exact relation between the intellect and intuition. Intuition is not the exact opposite of intellect; it is

simply the fulfilment of the intellect, reason coming of age or attaining to its full stature. It is not a power that is cut off from the rest of mental life and having an existence apart. To so regard it would mean to introduce an unbridgeable gulf in the unitary nature of the mind. Perhaps this whole difficulty is the result of our speaking about intellect and intuition in the abstract, which gives us the impression that they are independently existing entities. Rather, we should speak of the intellectual knowing of the mind and the intuitive knowing of the mind. As Prof. Hocking puts it in his book, *Types of Philosophy* : "After all, the intellect is not a separate organ of the mind. Perhaps both intuition and intellect are the mind in action, intuition recognising the presence of the objects, intellect defining what they are. They are inseparable. They constitute a working pair. They might be distinguished as a perception of the whole and perception of parts ; perception of the object for itself and perception of its relations ; perception of the unique in the object and perception of the qualities it has in common with others. In every one, the art of living consists in keeping intuition and intellect together."¹⁷

Prof. Hocking goes on to show the number of ways in which intuition and intellect mutually supplement each other. He says that intuition and intellect are mixed in very different proportions in different parts of our knowledge and that intuition has a certain initiative of its own which is indispensable to good judgment. According to him, knowledge begins with intuition and is always ahead of intellect. This permanent arrears in which intellect is to intuition is illustrated by him with reference to our knowledge of living things and persons. A person may be intuitively perceived but is never completely known, analysed or described in conceptual terms. The dependence of intuition on intellect is summarised by him as follows : "Intuition if it tries to set itself alone as a sufficient way of knowing has three defects : (1) It cannot define what it perceives ; for a definition makes use of a concept. (2) It cannot communicate what it perceives ; for language is of the common coin of concepts. (3) It cannot defend truth, nor distinguish true from false interpretation, without the aid and criticism of the intellect."¹⁸ It would appear from all this, that the exhortation of the greatest seer with reference to matrimony—" What God hath joined let not man put asunder "—will hold just as good in the province of knowledge. If we are asked to adumbrate what might be considered as a suggestion towards a theory of intuition, it would be somewhat as follows :

¹⁷ *Types of Philosophy*, pp. 201 and 202.

¹⁸ *Ibid.*, p. 211.

Knowledge implies a subject that knows and an object that is known. We have come to realise that the subject that knows is not simply a passive instrument in the process of knowledge, mechanically reflecting or copying an objective reality, but an active agent supplying in its own way to the final product of knowledge. Locke's Copy theory of truth stands only to warn us of the danger of the opposite view. We have also learnt from the realistic writers that the object that is known is an independently existing reality, impossible of reduction to the mere passing presentations of a consciousness. These two points may be regarded as fairly definite conclusions that have resulted from the epistemological discussions of the recent past. In the realm of metaphysics, we have to come to think of reality not as a static identity, monotonously the same in all its parts, but as an organic unity, emergently expressing itself in its various parts. Objections may be raised as to the conclusiveness of this truth. At any rate, we should be at least willing to admit that it is not an unsatisfactory way of characterising reality, especially after the extremely plausible interpretations of this idea by Lloyd Morgan and Alexander.¹⁸

If reality is not a static identity, repeating itself in all its parts as a common quality, but a hierarchy of varying and ascending qualities, then there is an *a priori* reason why it should ever be impossible to know all the aspects of reality by the same method. Or, to put it affirmatively, there is an antecedent reason for believing that the different aspects of reality will disclose their nature only as we use different methods of knowing. The epistemological discussions of the past have not sufficiently recognised the possibilities of this idea. They have invariably talked of our intellect as knowing, but not the man as knowing. The intellectual knowledge of man, just because intellect is only one side of his complex nature, can only refer to a certain aspect of reality. In other words, intellectual knowledge may give us the truth about, what we might call with Eddington, the metrical aspect of reality—that aspect which can be quantitatively measured. But, certainly, there is also a non-metrical aspect to reality—the value aspect of reality. Now, the term value stands for a fact in its complex relations to a personality. It is not simply a fact that is apprehended by his intellect, but a fact that is also appreciated by his feelings and emotions. Thus the apprehension of value implies that intellect is operating suffused with emotional and volitional elements. Let us illustrate. Why is it that the lover refuses to call his beloved a dance of electrons or a differential equation? Not because these descriptions are false, but because he feels that

¹⁸ See Lloyd Morgan, *Emergent Evolution* and S. Alexander, *Space, Time and Deity*.

his 'phantom of delight' has a far richer meaning than any of these insipid intellectual definitions. The 'more' that forms part of his knowledge of her is the result of her complex relation in an infinite variety of ways to his whole being. To put it differently, his knowledge is intuitive or integral, or the effect of the outgoing of his whole personality.

Stated in general terms, it would be that, while all knowledge is a relation between a subject and an object, the intimacy of the relation is not the same in every act of knowledge. The higher the reality we know, the deeper becomes the relation between the knowing subject and the known reality. As Clement C. J. Webb puts it in his book, *God and Personality*: "Holding as I do with the realists that it is to contradict the very notion of knowledge to suppose its object created by the subject in the act of knowing it, I would at the same time insist that the mutual independence of subject and object is at its maximum in the lowest, at its minimum in the highest kind of knowledge."²⁰ This also explains why in the higher kinds of knowledge, there is the necessity for a more exacting kind of preparation prior to the act of knowledge. Scientific knowledge is impossible without the prior preparation of the mind in the way of clearing it of all preconceived notions and prejudices. And knowledge of God is impossible without a strenuous moral preparation of the mind or of the whole personality. It is only the pure in heart that shall see God, not the clever in head. All the mystics have emphasised this point, and we can see the reason for it. Bennett explains this with reference to what he calls the category of response, and says, "What is important is that there is nothing magical about the mystical revelation, and that the same category of response which is valid in other departments of knowledge holds good also for the knowledge of the religious object."²¹

The suggestion we have given of a possible interpretation of intuition is not exactly the same as the theory of intuition propounded by Professor S. Radhakrishnan in his Hibbert Lectures for 1929. According to Prof. Radhakrishnan, and some of the great Indian philosophers before him, intuition is knowing by being. Really it is not so much knowledge as an experience. In his own words, "This intuitive knowledge arises from an intimate fusion of mind with reality. It is knowledge by being and not by senses or symbols. It is an awareness of the truth of things by identity. We become one with the truth, one with the object of knowledge. The object known is seen not as an object outside the self but as a part of the self.

²⁰ *God and Personality*, p. 206.

²¹ C. A. Bennett, *A Philosophical Study of Mysticism*, p. 76.

What intuition reveals is not so much a doctrine as a consciousness ; it is a state of mind and not a definition of the object."²² While we can accept Prof. Radhakrishnan's statement that in intuition there is the greatest possible intimacy between the mind and reality, we cannot accept the other statement that in intuition the mind becomes identical with the reality. The fundamental assumption of all knowledge is that there is a difference between the subject that knows and the object that is known. To annul this difference would be to destroy knowledge itself.

One very important matter that arises in connection with intuition is the question why intuitive knowledge, especially when it is directed to the understanding of the highest reality known as God, is so incapable of clear expression in language. The mystics always claim that they have an immediate intuition of God's nature and existence, but when asked to translate their experience in words find it well-nigh impossible. The dilemma of religious knowledge for Bennett consists in this very fact. He says, "Faith grasps its supernatural object, but cannot comprehend it ; tries to say what it means and then denies it means what it has said ; asserts in one and the same breath that it is knowledge and that it is not knowledge."²³ Bennett himself does not resolve the dilemma, but he does an extremely important work of showing the utter inadequacy of attempts that have been made by Feurbach and Santayana to explain away the claim of religion to truth. Prof. Hocking's suggestion in answer to this problem is that intuition cannot communicate what it perceives, for language is made of the common coin of concepts. In the light of the line of argument we have been pursuing, we may express the same point in a slightly different way. We have been contending that intuitive knowledge is a knowledge in which the whole personality of the knowing subject is in action, and that would mean that an object is known in an infinite variety of relations to the knowing subject and also as affecting his emotional and volitional natures. Now language is made up of words that are mostly universal, abstract and expressing a few general relations common to a number of instances. Therefore it should always be impossible for the religious man who has an intuition of God and of His dealings with human beings completely to translate his knowledge in terms of conceptual language. In this respect poetry and religion agree and differ from science. Prof. Bradley, in the essay which we have already quoted, says : "About the best poetry, and not only the best, there floats an atmosphere of infinite suggestion."²⁴ It is in this respect

²² *An Idealist View of Life*, p. 138.

²³ O. A. Bennett, *The Dilemma of Religious Knowledge*, p. 20.

²⁴ *Lecture on Poetry for Poetry's Sake*, p. 126.

of infinite suggestibility, this freedom from limiting definiteness and precision of meaning, that poetic and religious truth differ from scientific truth. The latter is the truth about the metrical aspect of reality, that aspect in the understanding of which our feelings and emotions are not allowed any interference. In the words of Prof. Eddington, a scientific proposition is a "symposium of the presentations to individuals in all sorts of circumstances, a synthesis of appearances from all possible points of view."²⁵ Because a great deal of abstraction goes into the making of a scientific truth, Dr. Lindsay of Balliol college calls it a "standardised apprehension". But a poetic or religious truth expresses a unique vision and is only understood by us when we have reached for ourselves that vision in our own unique way. Thus there seems to be a legitimate reason why a religious insight could only be falteringly expressed.

Baron von Hügel, in one of his essays, makes this pregnant statement which should help us in our understanding of the problem in hand. He writes, "The very closeness and interiority of the chief evidences and experiences of religion render the clear perception of their content and significance indefinitely more difficult than is the analogous attempt with regard to the external world; and such greater difficulty is characteristic of every advance in depth, richness and reality in the subject-matter of whatsoever we may study."²⁶ In other words, the deeper and more intimate the reality with which the truth is concerned, the less is it capable of neat formulation and ready transferability. The appropriate language for the expression of an intuition of God, which is a vision, is poetry, psalm and hymn. The creeds and dogmas of religion are the bloodless abstractions of a rich palpitating interiority of experience. Dean Inge is eminently right when he says, "The consciousness of God is always accompanied by a stirring of the soul's inmost depths, whether it is aroused by the operation of the will, intellect or æsthetic feelings. Religious utterance has therefore a poetic or prophetic character. A hymn like the Te Deum is a better expression of the Christian Faith than the Athanasian or even the Nicene creed."²⁷

What we have said so far about the nature of religious truth may be put in another way by saying that religious truth is the truth of religious faith. Only it is necessary to recognise that the term faith has both cognitive and volitional aspects. It is not a substitute for knowledge, a lame support for an intellect that is baffled in the face of unyielding facts. Nor

²⁵ "The Dominion of Physical Science," pp. 192, 193, in *Science, Religion and Reality*, Edited by J. Needham.

²⁶ *Essays and Addresses on the Philosophy of Religion*, p. 45.

²⁷ *Personal Idealism and Mysticism*, p. 22.

is it simply a will to believe, a fond desire and determination to hold on to conclusions that, while they are incapable of logical proof, are vital to a rich and colourful existence. In the former case, it is nothing but a high-sounding euphemism for ignorance; and the just who live by faith have never based the many-mansioned fullness of their adventurous living on such an empty nothing. In the latter case, it is no more than a desperate demand that things should be as we wish them to be, and breaks to pieces against the psychological law of reversed effect. If we have no reasonable grounds to believe in a statement, then the more we try to believe in it the more we find it impossible to believe.

What then do we mean by faith? It is not a substitute for knowledge but a source of knowledge, an organ of spiritual vision. It is a deeper reading of the meaning of reality, an understanding in terms of the whole man. To say this is not to regard faith as a separate faculty over against, or side by side with, reason. That would be to lay ourselves open to all the criticisms that were directed against the old faulty psychology. But we have a much more intelligible and defensible conception of faith when we think of it as nothing else but the knowing capacity of man exercising itself in a certain comprehensiveness of outlook, taking into consideration the many-sidedness of the relation of the known reality to the knowing subject. It is in this characteristic of inclusiveness or concreteness that faith-knowledge differs from scientific knowledge. In science there is, as it were, a reduction both on the side of the knower and on the side of the known object. The scientist is enjoined to be insensitive to the tremors of his feeling and to the impulses of his will and to know only with his mind. In the same way, on the side of the object, what he knows is the object in its measurable or quantitative aspect. This is what has been expressed by many writers as the abstract nature of science or, what is the same thing, that science is interested in the question 'how' and not in the question 'why'.

But faith has also a volitional side. It stands to the credit of William James to have pointed this out to the modern world, especially at a time when it was well-nigh suffocated in an arid intellectualism. But the volitional element does not consist, as we have already pointed out, in a vain determination to believe in something about which doubt is still theoretically possible, but in the determination to follow the trail of the heavenly vision of faith. It is to stake everything on what the insight of faith has revealed to be true. Very often it consists in such a moral ordering of the will as to help the knowledge of the faith to arise in the heart. It is thus both a necessary preliminary to the dawning of the faith and an inevitable working out of the risen faith in practical living. James Ward has a very

beautiful passage expressing this same idea in his *Realm of Ends*. He says, "We shall find that almost every forward step in the progress of life could be formulated as an act of faith—an act not warranted by knowledge—on the part of the pioneer who first made it. There was little, for example, in all that the wisest fish could know, to justify the belief that there was more scope for existence on the earth than in the water, or to show that persistent endeavours to live on land would issue in the transformation of his swim-bladder into lungs. And before a bird had cleaved the air there was surely little, in all that the most daring of saurian speculators could see or surmise concerning that untrodden element, to warrant him in risking his neck in order to satisfy his longing to soar; although when he did try, his forelimbs were transformed to wings at length, and his dim prevision of a bird became incarnate in himself..... This trustfulness,—might I say?—is comparable to the faith of Abraham, who, "when he was called to go out into a place which he should afterwards receive for an inheritance, obeyed and went out, not knowing whither he went."²⁸

We must now pass on to a consideration of the problem of the criterion of religious truth. The problem we are now facing is the question whether there is a standard or standards by the application of which we can decide about the truth of a religious intuition. We have ourselves admitted that there is nothing inerrant about the intuitive faith of religion, nothing in the antecedent nature of the process to make its deliverances always true. Just as man in his intellectual knowing is liable to come to wrong conclusions, he is liable to arrive at a wrong reading of the deeper meaning of reality by his intuitive knowing. But if this is admitted, then the problem of the criterion of religious truth becomes fundamentally important. And when we take into account the growing tendency among the educated of many countries, both in the East and the West, to ignore real differences among the various living religious systems and to regard them all as equally true ways to God, the imperative need for an adequate solution of this problem becomes all the more evident. But, as Prof. Baillie says in his book, "*The Interpretation of Religion*, "It is a matter for surprise that this vitally important question of the true criterion of truth and falsity in religion has so seldom engaged the attention of theologians in a systematic way. In this respect the study of religion has contrasted very unfavourably with the study of morals, for ethical science has long been in the habit of placing the criterion of ethical judgment in the very forefront of its enquiry."²⁹ It is,

²⁸ *The Realm of Ends*, p. 415.

²⁹ J. Baillie, *The Interpretation of Religion*, p. 402.

of course, true, as Prof. Baillie goes on to say in the next sentence, that many theologians have referred to this problem in one way or another in their various books, but there has not been a direct and exhaustive discussion of this problem.

The general problem of truth has increasingly occupied the attention of philosophers from the time of Descartes, but the solution has not by any means taken a single line. The criterion of truth has differed according to the school of philosophic thought. For the Absolute Idealist truth is internal coherence, for the Realist it is some form of correspondence, and for the pragmatist it is working value. Recently Prof. Macintosh of Yale University, after criticising all the other theories of truth, has added one more of his own from the point of view of what he calls 'scientific or representational Pragmatism'. According to him, "truth is representation of reality sufficient for whatever purposes ought to be considered by any one who may ever have to decide between that judgment and its contradictory."³⁰ For Dr. Macintosh the definition of general truth is equally valid as the definition of religious truth. He writes in his book, *The Reasonableness of Christianity*, "Religious truth is representation of religious reality, adequate for whatever purposes ought to be considered in deciding between the judgment and its contradictory."³¹ On the other hand, for Dr. Lindsay of Balliol College, Oxford, religious truth shares in the characteristic of truth in general (which, according to him, is adequate interpretation of reality) and in addition has some special characteristics. But, in his essay on 'The Nature of Religious Truth' he does not discuss in detail the standard or criterion of religious truth.

Perhaps, it might help us to come to some adequate solution of our very difficult problem if we first make sure as to what cannot be the criteria of religious truth. In the first place, the standard cannot be consistency with existing scientific or philosophic truths. To insist that a religious truth is not true unless it is congruous with existing scientific propositions is to introduce an alien criterion. It is to forget that a religious truth is the perception of a different order or aspect of reality from that with which science or philosophy is concerned. Recently there has been great rejoicing among pious theists over the scientific writings of men like James Jeans, Eddington and Heisenberg. Jeans' conclusion that the universe is more like a great thought than a great machine, and that the creator of the world must be at least a great mathematician, are hailed with delight as proving the theistic

³⁰ D. C. Macintosh, *The Problem of Knowledge*, p. 456.

³¹ *The Reasonableness of Christianity*, p. 230.

belief in a personal God. Heisenberg's principle of indeterminacy is acclaimed as an irrefragable proof of the freedom of the human will. In all these premature exultations there is a basic confusion of the relative domains of religion and science and an obstinate refusal to heed the warning of the scientists themselves. James Jeans in the same chapter in which he speaks of the creator as at least a mathematician of the first order, warns his readers that this is the knowledge they have so far, that it doth not at all appear what it would be 'round the corner'. Discussing the same question, Prof. Baillie writes, "Those of our contemporaries who are so eager to express their Christianity in terms of the scientific thought of their own decade—psycho-analysis, auto-suggestion, instinct psychology, behaviourism, spiritism, relativity, an undisciplined evolutionism and the like—are running the serious risk of appearing to their successors of a future age ten times more antiquated (that is to say, more completely children of their own age and so falling within their own favourite category of historical curiosities) than the authors of the *De Cœnitate Dei*, the *Summa Theologica* and the *Institutio Christianæ Religionis*."⁸²

In the second place, the criterion of religious truth cannot be mere pragmatic utility. If the tendency to adopt consistency with the latest conclusions of modern science as the standard of religious truth is the result of a too uncritical alliance with science, this second standard of pragmatic utility is the outcome of a too anxious desire to be in line with a prevailing system of philosophic thought. While there are points of similarity between religion and philosophy, there are also essential aspects in which the two differ. Besides, the definition of truth as working value has been weighed and found wanting even in a general theory of truth and it is much more inadequate in the realm of religion. It has a dangerous tendency to ignore altogether the cognitive and objective elements in religion and to lead to a theory of religion like that of Leuba's, where God is not to be known but only to be used.

Our negative discussion of the problem of the standard of religious truth has at least brought out one important point, namely, that the criterion cannot be external but must be something that belongs to the essential nature of religion. Prof. Clement C. J. Webb has a very suggestive paragraph in his book *God and personality*, where he gives his statement of a suitable criterion of religion. Though he is thinking here more of one religious system as different from another, still what he has to say will apply equally well when we are dealing with one religious truth as different from another. He writes :

⁸² *The Interpretation of Religion*, p. 405.

" But what is a suitable criterion ? I think that there is one, but that it is easier to apply than to formulate it. Two statements, however, about it I would venture to make. One of these statements will be that we may rightly test a religion by its success in encouraging, and being itself encouraged by, moral and intellectual progress among its votaries. The other statement will be that the only true test of the rank of one religion as compared with another is to be sought in the greater or less extent to which it exhibits its specific nature of religion and not that of science or morality as distinguished from religion. "³³ We have already seen how the first statement of Prof. Webb does not really give us an indubitable standard ; but his second statement is very suggestive and in general we have accepted it. If we expanded it a little further and gave it a content all our own, perhaps we might say this : a religious truth is true when it satisfies the fundamental religious demands or needs of man. It can be easily shown that while modern man differs in many important respects from primitive man, there is in spite of this a fundamental identity between the two in their basic religious needs. The eternal needs of man as a religious being are (1) the desire to possess ever more fully and perfectly the moral values which he has seen, and (2) the demand that they be conserved in and guaranteed by cosmic reality. Now, a religious truth is true in so far as, and to the extent to which it fulfils, these eternal religious needs. This section of our discussion may well be concluded with a quotation from Prof. Baillie, which summarises our main position. " The criterion of truth and falsity in religion can be nothing else than the extent of the satisfaction offered to our moral consciousness. The only question we can relevantly ask ourselves about any religious creed or dogma is this. How far does it seem to be inspired by, to harmonise with and effectively carry into its own transcendent region those values which our consciences declare to be deepest and noblest on earth ? "³⁴

Very hard as the problem of the criterion of religious truth has been, harder still is the problem of proof or demonstration of religious truth. The difficulty that we experience here is the result of the peculiarly elusive world with which religion deals. It is when we deal with the metrical aspect of reality, that aspect which we can easily measure and weigh and reduce to mathematical equations, that logical demonstration or an impersonally compelling proof is possible. Neat formulation and ready transferability are characteristics of this world. But when we pass from this world of quantity to the world of quality and value, we find our logical intellect is reduced to a helpless impotence and everything depends upon the keenness

³³ *God and Personality*, p. 245.

³⁴ *The Interpretation of Religion*, pp. 408, 409.

of our spiritual and moral perception. There is a reason why it should be so. The world of values is a world of infinitely subtle and intimately personal relations, and it is impossible to gather together under one binding conception this rich variety of complex connections. And it would be absurd if one demanded that proof in the world of religion should be exactly the same as proof in the world of science. Perhaps no one has expressed the point we are making with a greater delicacy of skill and clearness of perception than Baron von Hügel. He writes in one of his essays, "Nothing is more certain than that the richer is any reality, the higher in the scale of being and the more precious our knowledge of it, the more in part obscure and inexhaustible, the less immediately transferable, is our knowledge of that reality."³⁵ "We get to know such realities slowly, laboriously, intermittently, partially; we get to know them not inevitably, not altogether apart from our dispositions, but only if we are sufficiently awake to care to know them, sufficiently humble to welcome them and sufficiently generous to pay the price continuously which is strictly necessary if this knowledge and love are not to shrink but grow."³⁶

In other words, one might say that religious truths are never obtrusively objective as, for example, a sensation of sound. There are three reasons why they do not come home to us with the same aspect of inevitability or external compulsion as the knowledge of our immediately surrounding sense-world. In the first place, they are not immediately relevant to our physical or animal existence. It is not impossible to live without a recognition of the religious reality. Of course such a life would be very different from the rich abundant life that religion makes possible, but the very sense of contrast between this lower kind of bare existence and a higher order of meaningful life is the result of a perception, however vague, of a super-sensuous reality. This is true not only of our religious knowledge but also of the higher generalisations of science. The farther we pass from the immediate necessities of physical existence, the less compelling is our sense of certitude. The ordinary man who lives the bare hand-to-mouth existence is unaware of the great intellectual achievements of science, such, for example, as the all encompassing conceptions of evolution and gravitation.

Secondly, religious truths are subjectively conditioned in the sense of a prior demand of an adequate moral preparation; and it is when the individual has been so prepared that the light dawns and the vision breaks in. This is again not only true of the achievement of religious truth but of all achievements whether in the intellectual, physical or moral world. Genius

³⁵ *Essays and Addresses on the Philosophy of Religion*, p. 11.

³⁶ *Ibid.*, p. 104.

has been defined as the ability to take infinite pains, and granting that it is not an adequate or exhaustive definition of the term, still there is no gainsaying the fact that painstaking preparation is an essential pre-requisite of all accomplishment. While the first-rate scientists, the makers of our knowledge of the physical world, are more than mere plodding intellectuals, they have never been wanting in living laborious days of patient research. In the realm of religious knowledge the necessary preliminary to discovery is moral preparation, the possession of a character that is luminously pure. This is a far more exacting preparation than mere intellectual discipline. And all through the ages the men who have added to our knowledge of God have been the prophets and seers of noble living.

In the third place, the essential moral character of religious truth would be destroyed if it forced itself on the mind of man willy-nilly. In other words, like all spiritual gifts it has to be subjectively chosen and voluntarily accepted. This does not mean that religious truth is purely subjective. Like all truth, it is objective and necessary; but it does not become real to the individual unless he desires it with his whole being and accepts it willingly. The Hebrew Prophet Isaiah has this arresting statement : "Verily Thou art a God that hidest Thyself."³⁷ What he means is that though God prevades the whole universe and there is nothing that exists without Him, still He is of such a non-assertive but winsomely waiting character that one cannot discover Him except as the result of an eager search. Similarly Bishop Berkeley in his *Principles of Human Knowledge* regards the world of space and time as the divine language, and points out that it reveals itself as big with meaning only for the understanding heart. Thus in the religious world, we may have eyes and yet not see, hearts and yet not understand. It is when we have that overwhelming desire to see and an inner constraint to understand that religious truths reveal themselves.

Once again we must insist that the fact that religious knowledge is subjectively conditioned and does not strike our mind when we are not ready for it with an obtrusive objectivity and external compulsion, does not imply that it is only a fond illusion, splendidly null and beautifully void. It does nothing more than reveal that, as we ascend higher and higher in the scale of reality, more exacting conditions have to be satisfied before we could enjoy the fruit of knowledge. As Dr. K. Edward puts it, "Do not let it be argued that, because it is not a universal mode of experience (religious experience) admitting of a verification which it is impossible to overlook or to deny, therefore it is of a purely subjective nature, finding no sure

³⁷ *The Book of the Prophet Isaiah*, Ch. 45 : 15.

ground in the structure of reality. We must refuse to allow the question of certitude to be confused with the question of truth. The nature of reality cannot be decided by universal suffrage."³⁸ Therefore all that one can do in the way of proving a religious truth to an unbeliever is to educate him or introduce him into that state of moral preparedness, that attitude of inner receptivity, in the wake of which, or in response to which, the intuition of the truth would follow.

BIBLIOGRAPHY.

1. Andrews, C. F. . . *Mahatma Gandhi's Ideas*, New York, 1930.
2. Baillie, John . . . *The Interpretation of Religion*, New York, 1928.
3. Bennett, C. A. . . *A Philosophical Study of Mysticism*, New Haven, 1923.
- " " . . . *The Dilemma of Religious Knowledge*, New Haven, 1931.
4. Bergson, H. . . . *An Introduction to Metaphysics E.T.*, New York and London, 1912.
5. Bradley, F. H. . . . *Appearance and Reality*, 2nd Edition, London and New York, 1906.
6. Bradley, A. C. . . . *Oxford Lectures on Poetry*, New York, 1909.
7. Edward, K. . . . *Religious Experience : Its Nature and Truth*, Edinburgh, 1926.
8. Freud, S. . . . *The Future of an Illusion E.T.*, New York, 1928.
9. Hocking, W. E. . . . *Types of Philosophy*, New York, 1929.
10. Hogg, A. G. . . . *Redemption from This World*, Edinburgh, 1922.
11. Hügel, Baron von . . . *Essays and Addresses on the Philosophy of Religion*, 1st Series, London and Toronto, 1921.
12. Inge, W. R. . . . *Personal Idealism and Mysticism*, 2nd Edition, London, 1913.
13. Jeans, James *The Mysterious Universe*, Revised Edition, New York and Cambridge, 1932.
14. Leuba, J. H. . . . *A Psychological Study of Religion, Its Origin, Function and Future*, New York, 1912.
15. Lindsay, A. D. . . . *The Nature of Religious Truth*, New York, 1928.
16. Macintosh, D. C. . . . *The Problem of Knowledge*, New York, 1915.
- " " . . . *The Reasonableness of Christianity*, New York, 1925.
17. Morgan, C. Lloyd *Emergent Evolution*, London, 1923.
18. Needham, J. (Editor) *Science, Religion and Reality*, London, 1925.
19. Poincaré, H. . . . *Science and Method E.T.*
20. Radhakrishnan, S. . . . *An Idealist View of Life*, London, 1932.
- " " . . . *The Hindu View of Life*, London, 1927.
21. Smith, Norman Kemp "Is Divine Existence Credible?" Annual Philosophical Lecture, British Academy, 1931. From the *Proceedings of the British Academy*, Vol. 17, London.
22. Taylor, A. E. . . . *The Faith of a Moralist*, 2 v. London, 1930.
23. Tennant, F. R. . . . *Philosophy of Sciences*, Cambridge, 1932.
24. Ward, James *The Realm of Ends, or Pluralism and Theism*, Cambridge, 1911.
25. Webb, Clement, C. J. . . . *God and Personality*, London, 1919.

³⁸ K. Edward, *Religious Experience, Its Nature and Truth*, p. 214.

THE PROBLEM OF SELF.

By S. N. L. SHRIVASTAVA, M.A.,

Hittarini City College, Jubbulpore.

SINCE the very dawn of reflective enquiry into the ultimate meaning of life and experience, the nature and destiny of self has been the most fascinating and absorbing, and also the most perplexing problem for human thought. The Indian mind, as is well known, placed the problem of self at the forefront of philosophical enquiry, and made *self-realization* the crowning fulfilment of all life's endeavours. “तमैकं जानथ आरमानमन्यावाचो विमुषथ” sums up the conclusions of the thinkers of India regarding the Way and the Truth, and I am persuaded to believe that it is in the solution of the problem of self that the philosophical genius of India appears in its native potency and excellence. I do not, however, mean to deny that valuable contributions have been made on the subject by eminent thinkers in the West since the time of Kant. In fact, there is a remarkable similarity on the point between the conclusions of the Vedāntic philosophers in India and the Kantian and Hegelian thinkers of the West.

I. How there comes to be the Problem of the Self.

The most casual reflection over the nature of reality—meaning by reality what may conceivably be spoken of as all that is, the entirety of the known and the knowable—suggests as its most general feature its *experiential* character. As Mr. Bradley strikingly puts it “Reality is experience”; a knowing, comprehending, intelligence or consciousness, and a known, intelligible objective. This is the most general statement we can make about reality, and the initial assumption with which philosophy starts. To every living percipient, the knowability or experiencibility of the objective world unmistakably indicates his own status as a *percipere*, distinguishable from the entire totality of perceived or comprehended things of the world. One always comes to think of one's *self*, howsoever vaguely that may be, as a *percipere*; at any rate, of this as its most important and central among other attributes that it may possess. The problem for philosophy is to make out clearly the ultimate nature of the *percipere* and indicate its proper position in the scheme of reality.

Is there a self?

The question : Is there a self ? is meaningless. That the world of experience implies an experienter or knower cannot be denied. To deny the existence of a *percipere* is to reduce the entire world of objectivity to non-entity.

" It is an obvious truth that everything known implies a knower. Indeed, it is so transparently obvious that an attempt to prove it would seem like wasting logical ingenuity over a truism or a tautology which is beyond the region of proof or disproof."¹ Even those who avowedly deny the existence of a permanent self or an abiding subject, like for example Wm. James, Hume and J. S. Mill, are constrained to install the preceding and passing thoughts as the thinkers of the succeeding thoughts in our minds.

Descartes inaugurated modern philosophical thinking with the vindication of the primal and absolute certainty of *ergo sum*; the very fact of thinking establishes the thinker, the very fact of doubting proves the doubter. Śamkara points out that the existence of the self cannot be refuted; for, that which refutes is the essence of the self.² According to *Vācaspati* "The self is known through indubitable, non-erroneous and immediate experience of the nature of 'I' and therefore cannot be questioned or investigated. No one indeed doubts 'Do I exist' or 'Do I not?' "³ Even Mr. Bradley, for whom the concept of the self "is too full of contradiction to be the genuine fact", is constrained to concede that "the fact of one's own existence, *in some sense*, is quite beyond doubt.... We are all sure that we exist; but in what sense and what character—as to that we are most of us in helpless uncertainty and blind confusion".⁴

The problem for philosophical enquiry therefore is not: "Is there a self?" but "What is the ultimate nature of the self?" And the self, we may endorse forthwith, is in some way the knower that is presupposed by the world of knowledge.

In order that we may be able to establish satisfactorily the ultimate nature of self, let us make a critical survey of the different meanings of self, and note their inadequacies.

(i) *The body as the self*.—The most naïve view of the self, one which is embraced even by the most unreflective, is to take the self as the body. Nothing much need be said on this point, as the body is too outward and changing a thing to pass for the identical principle which may be designated the self. Yet, wedded as we are to the body, the self's appropriation of the body in contradistinction from all other extra-organic objects, has meaning and implications, which are highly significant for a metaphysical

¹ A. C. Mukerji, *Self, Thought and Reality*, p. 284.

² 'यदेव हि निराकर्ता, तदेव तत्स्य स्वरूपम्' | *S. B.*, II, 3. 7.

³ " 'अहम्' इत्यसंदिग्धाविपर्यस्तापरोक्षानुभवसिद्ध इति न जिज्ञासास्पदम् ।

नहि जातु कश्चिदत्र संदिग्धे 'अहं वा नाहं वा' इति ।" *Bhamati*, p. 3.

⁴ *Appearance and Reality*, p. 64.

determination of the nature of the self. The self's perception of the body differs fundamentally from the self's perception of all extra-organic objects ; and our examination of *the self as perceiving the body* throws a rich flood of light on the nature of he self.⁵ The body is objectively perceived by the self in a way which singularly differs from the perception of the objectivity of other objects. I quote a passage from Prof. K. C. Bhattacharya to illustrate the difference : " The objectivity of other perceived objects is constituted by their position relative to the percipient's body which itself therefore cannot be taken to be so constituted. To the percipient, his body is an object situated in space relatively to some other percipient's body as imagined, being not perceived by himself in a space-position though not therefore as non-spatial. The percipient as in his body or as his body is in this sense dissociated from the external world, being what his perceived world is distinct from."⁶ What is characteristically unique, then, about the perception of the body, is its *dissociation* from its objective surroundings and its being the centre of reference of all extra-organic bodies perceived in space.

There is another way in which the perception of the body differs from the perception of other external objects. The unseen face of a perceived external object is imagined by the observer by imagining his own body placed in a different position ; but the unseen half of his own body is imagined by the observer, not by imagining his own body thus placed, but by imagining *another perceiving body* placed in a different position.

Thirdly, one does not perceive or is not aware of one's body merely from the outside, but " one is immediately or sensuously aware of it also from within in what is called feeling of the body ".⁷ With regard to this feeling again, it may be noted that it is not a *feeling* from which the object felt is distinguishable ; but in this case, the feeling of the body and the body as felt are one. The body that is felt is indistinguishable from the body that is perceived.

All these considerations point to the fact that the body is not on a par with other extra-organic objects in the world, and that it is not a mere " this " in a thorough-going objectivistic sense. The materialistic view of taking body as the self is not therefore without any justification ; though, as we shall have occasion to see in the sequel, it fails to reach the deeper meaning of the self. Leaving the further implications of body as perceived and felt

⁵ For the elucidation of this point, I am indebted to Prof. K. C. Bhattacharya's work, *The Subject as Freedom*.

⁶ *The Subject as Freedom*, p. 93.

⁷ *Ibid.*, p. 95.

to be considered later, we now make a transition from the bodily to the psychic sphere to determine what the self is.

(ii) *The self as the total psychical contents.*—Coming to the psychical sphere, we may begin with a very simple way of regarding the self of an individual: what Bradley calls "the present contents of his experience" or "the total filling of the man's soul at this or that moment".⁸ This would mean the entire psychic continuum, the whole seething mass of the individual's feelings, thoughts and sensations in interaction with the entire world of persons and things; in other words, the whole series of psychical events passing in one's mind at any one moment.

On this view, the self becomes an ever-changing principle, and therefore no self, for the psychical contents which fill the mind at any one moment are not the same as fill it the next moment. "The self, to go no further," writes Bradley, "must be something beyond present time, and it cannot contain a sequence of contradictory variations." We cannot acquiesce in the idea of a self renewing itself every moment. On such a view there is the further difficulty about the possibility of an identical self-awareness or self-consciousness. If the self of man be equated with the momentary psychical filling, the awareness of an identical self becomes utterly inexplicable, nay, an impossibility. Attempts have no doubt been made to show that the psychical series is itself the self and aware of itself as such. Hume, for example, resolves the "I" into a bundle of conscious happenings, and sees no reason to believe in the self as an entity distinct from them. But we cannot understand how there can be the awareness of a totality of separate impressions, unless there be a unifying subject behind them. William James sought to explain the phenomenon of self-consciousness by making each passing thought the subject of experience. Each thought as it emerges in the mind gathers into itself the whole past experience, and passes on or integrates into the next succeeding thought. Thus, says James, the thought is the thinker. James is evidently confusing the process with the subject of the process. The consciousness of the process as such, presupposes the existence of a subject which itself is not an item in the process, but transcends and comprehends it. The subject of successive conscious states cannot itself be a link in the successive series. Further, it is not intelligible how one thought can be the subject of another thought. Every attempt, therefore, to reduce the self to a momentary bundle of psychical contents, must end in a disaster.

⁸ *Appearance and Reality*, p. 66.

Prof. S. Alexander, also, whose views on the subject we shall consider more fully later, holds a view of the mind somewhat similar to that of William James. The mind according to him is "a continuum of mental acts". "At any one moment" says Alexander "a special mental act or state is continuously united with other mental acts or states within the one total or unitary condition; e.g., perceiving of the tree with the sight of adjacent objects, the sensation of the cold air, the feeling of bodily comfort and the like, all of them merely elements which can be discriminated, according to the trend of interest, within the whole mass. Moreover not only is the mental act continuous with others at the same moment, but each moment of mind is continuous with preceding, remembered moments and with expected ones. This continuum of mental acts, continuous at each moment, and continuous from moment to moment, is the mind as we experience it".⁹ The untenability of such a view must well-nigh be clear from what we have said before. Alexander resolves the mind into a running stream of mental events, without accounting for how the awareness of this stream as such is possible without an underlying unity of consciousness.

(iii) *The self as the average mass, or some central organisation, of psychical contents.*—Rejecting the view therefore that the whole congeries of psychical events at any one moment can be the self, we may, as Bradley¹⁰ suggests, modify our position, and say that not the whole seething mass, but the "constant average mass" of psychical contents in the individual's mind should be taken as the self of the individual. On this view, we shall be taking as the self of man not the ever-changing influx of psychical contents that fills his mind from moment to moment, but the relatively permanent contents, the average usual contents, "the usual manner in which he behaves, and the usual matter to which he behaves", "his habitual disposition and contents". On such a view, as Bradley points out, we do not arrive at the essential self; for the usual disposition, the system of interests and purposes, which is alleged to constitute the normal self of man, is not the same at different periods of his life-history, but always undergoing change and modification in consequence of new influences he is subjected to in life from time to time. "Is he literally *not* the same man" asks Bradley "if loss, or death, or love, or banishment has turned the current of his life?" So, the attempt to find in some central nucleus of interests and purposes what could be said

⁹ *Space, Time and Deity*, pp. 13-14.

¹⁰ The different meanings of self considered here are those suggested by Bradley in the Ch. "The Meaning of Self," in his *Appearance and Reality*. Criticisms of these meanings follow their statement.

to be the self of man, though a fairly satisfactory view for all practical purposes, is fraught with insuperable theoretical difficulties.

Taylor's view of the self.

It is pertinent to consider in this connection Professor Taylor's view of the self, which is so like the view whose inadequacy we have just now considered. The self for Taylor is a teleological concept. "The self whose quality is revealed in Biography and History and judged in Ethics, has for its exclusive material our emotional interests and purposive attitudes towards the various constituents of our surroundings ; of these, and of nothing else, our self is made. And the self, again, is one and individual, just in so far as these interests and purposes can be thought of as forming the expression, in the detail of succession, of a central coherent interest or purpose. Where this central interest appears not to exist at all, we have no logical right to speak of a succession of purposive acts as the expression of a single self."¹¹ Continuity of a central and a pervading purpose is what constitutes the identity of the self. Consequently for Taylor "the self is essentially a thing of development, and as such has its being in the time-process."¹² "It is probable" he tells us "that there is not a single element in what I call my present self which is not demonstrably the product of my past development, physical and mental."¹³ Now, in the two aspects which Mr. Taylor ascribes to the self, the one that the identity of the self consists in the continuity of a central and unchanging purpose and the other that the self is subject to a continual development, there is an apparent incongruity ; for, will not the central purpose itself go on changing as the self whose index it is alleged to be itself goes on changing and developing from time to time. What then, does the identity of the self consist in ? In an ever-changing system of interests and dispositions, there can, at best, be only a relatively permanent central interest or purpose. The self, which for the practical purposes of History, Ethics and Biography, we take to consist in the system of "our emotional interests and purposive attitudes towards the various constituents of our surroundings" has too mobile an identity to pass for an abiding self in a genuinely metaphysical sense. Evidently, Professor Taylor fails to distinguish self as an organised system of interests and purposes with an ever-changing organisation and structure from the abiding subject-consciousness back of it. On Professor Taylor's view we cannot understand how the awareness of the same "*I*" all through life can be possible at all. The continuity of

¹¹ *Elements of Metaphysics*, p. 385.

¹² *Ibid.*, pp. 340-41.

¹³ *Ibid.*, p. 341.

some central attitude or interest in life can hardly account for such awareness. Consider the case of a man who has followed different callings in different periods of his life and has in these different periods pursued widely differing ends and interests. Even such a man, in spite of the discontinuity of his interests and ends, is aware of himself as the *same* man. The identity of the self, therefore, cannot be accounted for by the continuity of an interest or attitude, but by positing a deeper unity of consciousness which comprehends the different organisations of the mind as so many moments of its experience. The self as an organised whole must be distinguished from the self as the ultimate subject of experience.

Failing, therefore, to find the self in the entire mass of psychical filling, or in some average organisation thereof, the third alternative, Bradley tells us, is to take the self to consist in an "inner core of feelings" resting on what is called *cœnæsthesia*. This appeal to the "inner feeling" too does not help us any further in determining what the self is. It is impossible to extricate such a central felt spot from the rest of the contents; and even if there be any such, it would always be subject to the modifying influences of the rest. The only clue to the solution of the problem of self, Bradley rightly points out, consists in finding a principle which will account for personal identity; and such a principle we vainly attempt to find either in the continuity of the bodily organism or in the continuity of the psychical stream. In the popular view, a man's identity resides chiefly in his body, but the body is not the same always. It is possible for the body to be changed beyond recognition by some violent disorder or disease. If we seek to base personal identity on psychical continuity, "there seems hardly any way of deciding, whether the psychical current is without any break. Apparently, during sleep or otherwise, such intervals are at least possible; and, if so, continuity, being doubtful, cannot be used to prove identity."¹⁴ Nor can memory be held accountable for our continued personal identity; for memory is too frail for that. The greatest difficulty here, is about the unity of memory itself. We have not one memory, but a 'bundle of memories' for different aspects of our life, not all equally strong; for certain things we have feeble memory, for certain things strong; for certain things again our memory fails us altogether. If memory be the basis of our self-awareness, then the latter ought to be enfeebled as the former does in old age or in disease. But that is never the case.

(iv) *The self as a monad or a simple self-contained unit.*—The next alternative meaning of self is to take it as a monad or a simple unit. Even this

¹⁴ *Appearance and Reality*, p. 70.

monadic view, Bradley tells us, is not free from difficulties. Is the alleged monad totally *apart* from the whole mass of psychical contents, or, is it in some way related to it? If the former, then it is preposterous to call it the self of man; and if the latter, then the simplicity of the monad is destroyed. The monadic view of the self then, with all its seeming promise of a satisfactory solution, fails in the end.

We shall postpone for a later consideration Bradley's view of self as the subject, requiring as it does, a searching criticism. Bradley sees no reason to believe in the reality of the self construed even as the subject; but we shall attempt to show that he has really misconstrued the meaning of the subject.

We therefore pass on to consider the last alternative meaning of self which Bradley takes up for consideration. As a last attempt to retain the reality of the self, Bradley suggests, we may construe self as the 'mere self' or the 'simply subjective'. By the 'simply subjective' Bradley here means that residual portion of the psychical contents which remains as the back-ground over against the present attended 'object', the object that is relevant for the purpose in hand. It is, to use his own words, "the unused residue, defined negatively by want of use, and positively by feeling in the sense of mere psychical existence".¹⁵ On such a view, the meaning of the self can have no fixed application. "For that which is 'objective' and essential to one kind of purpose, may be irrelevant and 'subjective' to every other kind of purpose."¹⁶ The self is reduced to the status of a 'chance self'. Apart from this, we may point out a further difficulty of which Bradley himself seems to be unaware. A section of the psychical contents, though 'in the back-ground', is, nevertheless, apprehended as such or is an *apprehended content*, and for that reason it is *objective* and not the 'simply subjective'.

Thus, Bradley is perfectly right in holding that the self cannot be established as a reality in any of the meanings considered above.¹⁷ In experience as we have it, experience which exhibits terms and relations, the self which in some way must harmonize in itself unity with diversity, becomes unintelligible and indefensible on any principle which we know or can think of. The only chance for establishing the reality of the self, then, lies in showing some extra-empirical and unrelational form of experience, where

¹⁵ *Appearance and Reality*, p. 88.

¹⁶ *Ibid.*, p. 86.

¹⁷ We agree with Bradley so far, but we have shown further on our disagreement with his rejection of the reality of self even as *subject* and with his theory of the interchangeability of *subject* with *object*.

unity is harmonised with diversity, and where the self is directly revealed. We should have a type of experience which should enable us to understand how diversity can be reconciled with unity, or else it should not present any occasion for such an understanding, that is, it should present the fact of harmony in an intuition. Neither alternative holds true and the self's being unity-in-diversity remains an unsolved puzzle, an inexplicable enigma.

Taking the first alternative, we seem to find in feeling an experience of a concrete whole where there are no relations and no terms, and this may be thought to clear our puzzle about the self. But this is a vain hope. The function of feeling is not exclusively or especially to reveal the self. Secondly, at the level of feeling there is no differentiation between subject and object, self and not-self, and therefore we cannot be said to have there any clear knowledge of the self. Nor, thirdly, can feeling furnish us with any clue for understanding how unity and diversity can be harmonized in experience; for, feeling is *ex hypothesi* unrelational and cannot therefore be adequate to the knowledge of reality which is relational throughout.

Nor do we escape the riddle about self-consciousness, if we take it somehow as an intuited fact. For even admitting the reality of such an intuition, it cannot bring us any *understanding* of the self or reality. An intuition which completely transcends relational intelligence, may be an experience for all that, but cannot render intelligible the facts of relational existence. It would be an experience which *explains nothing*. Our problem would only be solved if we had an intuitional experience which though overriding discursive intelligence, yet contained it as a subordinate element within it. But we never have such an experience.

Thus in the end Bradley has to despair of the solution of the problem of self. The self's sameness or identity in the midst of diversity is to him an insoluble enigma. But before we join with Bradley in despairing of what is the most vital and arresting problem for human thought, we should pause to consider whether Bradley has exhaustively handled the problem of self, or, whether there is the necessity of re-conducting our search from a new point of view. In the following section we propose to give what we consider to be the correct solution of the problem of Self. We shall attempt to show that the self, properly understood, is the ultimate subject of experience which is distinguishable from everything that is objective in character, physical or psychical.

II. The Self as the Ultimate Subject of Experience.

We have seen that all our attempts to fix the self some where in the psychical sphere have ended in failure; and this brings us to the recognition of the fact that the self is not an item, a collection, or a totality of the

psychical contents. What then is the self ? To answer this question, we must turn our attention to what is the most vital feature of self-awareness, or how there comes to be the awareness of a self. The awareness of the self is always, we observed at the outset, the awareness of a *percipere*, of one who *lives and knows* the objective world before him. One is aware of himself as a perceiving intelligence and distinguishes himself as such from the entire world of perceived objects. The self, then, however vaguely one may come to think of it, is a *percipere* in some way. The self, to be intelligible in the sense of a *percipere* and to be distinguishable from all perceived contents, cannot be equated with anything, short of the ultimate subject consciousness to which the body, the world of extra-organic objects, and all the diversity of psychical contents are alike objective. It is the foundational consciousness, the ultimate subject, which is comprehending only and not comprehended. Such an ultimate all-comprehending consciousness is the indispensable condition of comprehending anything at all ; but for it, all experience would be dark. All existence is existence *for* the self as the ultimate comprehending subject. Anything that is comprehended or comprehensible as an object is characterised by being referred to the self as that *for which it is*. Consequently the self is the basis of all objective reference, "the in-expugnable reality to which all objects point."¹⁸

The self thus construed as the ultimate subject of experience requires no proof, for it is the very presupposition and condition of all knowledge and proof. It existing, everything exists ; on its knowing depends the knowledge of all that is ever known or knowable.¹⁹ Of anything that can so much as be said to exist it can be affirmed *a priori* that it is either known or is *capable* of being known, under conditions whatsoever or in any state of experience whatsoever, and anything that is not conditioned by capability of being known is *ipso facto* non-existent. Even its assertion that it is non-existent is *meaningless*, for it cannot admit of any *assertion* positive or negative. What is assertible must, in some sense, be a knowable. Even what is problematically formulated to exist is not *completely unknown*, but known ; known as unknown, or known as what is *to be* more fully known. Thus considered, the moral postulates of Kant are not simply unknowables, and a belief in them is not a *mere* belief. "The self then is the most ultimate condition of experience ; or, what is the same thing in different words, it is the ultimate transcendental condition of objectivity."²⁰ The self is therefore

¹⁸ *Self, Thought and Reality*, p. 358.

¹⁹ "तमेव भान्तं अनुभातिसर्वं, तस्य भासा सर्वमिदं विभाति" । मु. उ., II, 2. 10.

²⁰ *Self, Thought and Reality*, p. 288.

the basic or primal FACT in reality, and not merely a component part or item therein. When we thus view the self of man, we come in sight of his real greatness. We are obliged to think of man, as Caird says, " Not merely as an object who is a particular part of this partial world, but also to regard him as a being in whom the principle of unity that underlies all the differences of the world becomes conscious of itself."²¹ The self construed as the subject, we repeat, can only be intelligible as the foundational consciousness which comprehends the entire 'cosmos of experience', or 'the whole choir of heaven and furniture of earth', as its content.

The self as the subject of experience is indeterminable by the categories of thought.

The first important step, then, towards determining the real nature of the self, is to distinguish it as a subject from everything that is, or is capable of being, in any sense an object to it. And the object is whatever is comprehended by the subject as a content, be it a physical thing or a mental event. Being the transcendental condition of everything that is objective in character, it never derogates from its subjecthood, nor itself is ever given as an object. " That which knows always " argues *Suresvara* " is not known. If it were to be known, it would not know at all. If the subject could also be the object, then the object being but the subject, there would be merely the subject and no object to be known. Or, the subject having degraded itself to the status of the object, there would simply be the object and no subject to know it. The world would thus be deprived of the light of the witnessing subject, and universal blindness would follow."²² " The Ātman is unknowable " says Professor Ranade " because He is the Eternal Subject who knows. How could the Eternal Knower be an object of knowledge ? "²³ Green is right in maintaining that the knowing consciousness cannot be a phenomenon among phenomena, for it is the underlying principle of unity " through which phenomena become the connected system called the world of experience ". It is this very fact which Berkeley tries to explain when he says that we cannot have an 'idea' of the self. The self as the transcendental condition of objectivity cannot be determined by means of our objective categories of thinking such as a thing or a substance, etc. Kant points out that the self cannot be made an object of judgment for it is presupposed in every judgement. " This I, or he, or it," he says, " this thing that thinks, is nothing but the idea of a transcendental subject of thought = *x*, which is known only through the thoughts that are its predicates, and

²¹ Preface to Green's *Prolegomena to Ethics*, p. vi.

²² R. Das, *Essentials of Advaitism*, p. 61.

²³ A *Constructive Survey of Upanishadic Philosophy*, p. 272.

which apart from them, cannot be conceived at all. We turn round and round it in a perpetual circle, for we can make no judgment about it without making use of the idea of it in our judgment."²⁴ The self, therefore, stands on a level quite different from objects and is ultimate and *unique*. "Just as the centre" writes Dr. Haldar "in relation to which the circumference is possible, cannot itself be a point in the circumference, so the unity of the self to which objects as members of a connected whole are necessarily referred cannot be one of those objects."²⁵ The subject, then, is foundational and ultimate, and any attempt to reduce the status of the subject to anything short of this commits what has been called "the fallacy of the decentralisation of the ego."²⁶ In other words the subject cannot be on a par with the objects, whether the objects be the physical things or mental or psychical events. It rises superior to all that it *comprehends* as its objects. The subject which comprehends the whole series of psychical, organic and extra-organic facts and events which constitutes for us our objective, cannot itself be a term in the series. The subject is a principle *sub specie aeternitatis*, while objective events and facts are *sub specie temporis*; and the former is an indispensable pre-supposition of the possibility of the latter. "The relation of events to each other as in time," writes Green, "implies their equal presence to a subject which is not in time. There could be no such thing as time if there were not a self-consciousness which is not in time."²⁷

In fact, the subject cannot be a 'relatum' at all, being that which renders all relations possible. Consequently the subject-object relationship is the most generic and unique relationship, which is presupposed by and is the pre-condition of every other specific inter-objective relationship. The world, with the spatial, temporal and causal relationships of its objects and events, is there for the subject which transcends these relations and is therefore the non-causal, non-temporal, and non-spatial epistemological ground of the former. Subject and object are not simply two co-ordinate terms in a relationship, with peculiar characteristics of their own. In the epistemological subject-object co-ordination, the subject exceeds and transcends the object. The subject-object relationship is a *relationship* only metaphorically speaking, for relationship connotes a connection of relata somehow on the same level. The subject is essentially supra-relational. In order that the related manifold be *experienced as related and forming one order or one world*, it is essential that the experiencing subject itself be out

²⁴ Watson, *The Philosophy of Kant*, p. 148.

²⁵ *Neo-Hegelianism*, p. 109.

²⁶ I borrow this phrase from Mr. A. C. Mukerji.

²⁷ *Prolegomena to Ethics*, p. 59.

of that order and not be a part of it on co-ordinate footing with other parts therein. The attempt of some of the contemporary realists to bring down the knowing mind in level with other things in the world is extremely anomalous. If it be granted that the knowing mind experiences the entire world-order in its interrelatedness and unity, then it is a manifest contradiction to say that the world-experiencer is a part of, or an element in, the experienced world. The subject *qua* experiencer has a unique status which none in the democracy of experienced things can have.

Bradley misconstrues the nature of the subject.

We are now in a position to show the misunderstanding of Bradley regarding the nature of the subject. Bradley, we had occasion to remark previously, misconstrues the nature of the subject and therefore, the view of the self as subject also appears to him unsatisfactory. The subject, we have attempted to show in our foregoing pages, is the transcendental principle of consciousness, which comprehends and *transcends* the entire series of psychical, organic and extra-organic facts and events, which are all objective to it. It is just this important fact which Bradley misses when he says that "both subject and object and their relation"²⁸ are "inside a man's mind". If the subject could be comprehended as *given* inside a man's mind, it would be but the object, a psychical content. We should say not that the subject is inside the mind, but that the mind is inside the subject. The subject construed as the ultimate comprehending consciousness cannot be inside anything, everything being inside it. The subject for Bradley is only a concrete psychical content, and the "Ego that pretends to be anything either before or beyond its concrete psychical filling is a gross fiction and mere monster." It may be pointed out that a concrete psychical content presupposes the subject as the transcendental pre-condition of its apprehension, and therefore the former cannot be equated with the latter. To bring down the subject to the level of a psychical content, is to assert that it is only a content and not the subject of a content. The subject is in its very nature unobjectifiable, though in all experience we have it is necessarily correlated to an objective. To call an empirically observed psychical content the subject is a manifest contradiction. Bradley's empirical bias prevents him from recognising a transcendental consciousness without which no knowledge or observation could ever be possible.

The interchangeability of the subject with the object.

Bradley's initial misunderstanding of the transcendental nature of the subject is responsible for his ill-conceived theory of the interchangeability

²⁸ *Appearance and Reality*, p. 77.

of the subject with the object, the self with the not-self. Construeing the subject as a part of the total psychical contents, Bradley marks out the rest as the not-self, and then proceeds in a very ingenious way to show that "the main bulk of the elements on each side is interchangeable".²⁹ The self is continually passing into the not-self and the not-self into the self. "Like clouds they shape themselves and go." As to which portion of the totality of psychical contents should fall on the subject side and which on the object, Bradley formulates anything but a satisfactory principle of division. He takes as the subject the marginal and general background of contents to which may be opposed as the object what is *particularly* attended to; and then proceeds to argue that there is nothing in the general background which may not at some time or other be in turn particularly attended to, and thus become an object or the not-self. Similarly, what is at one time particularly attended to, may, at other times, sink into the general background of feeling and thus pass from the region of the not-self to that of the self. I quote an illustration from him to make his meaning clear. "Take, for instance, some slight pain. We may have been feeling in our dimmest and most inward recesses uneasy and discomposed; and, so soon as this disturbing feature is able to be noticed, we at once react against it. The disquieting sensation becomes clearly a not-self, which we desire to remove."³⁰ So what Bradley selects as the subject from the totality of psychical contents is that "unexhausted margin" which "in its general idea of margin can be made an object, but which in its particularity cannot be."³¹

Now, it takes little to see what a fatal confusion Bradley is in. If that which was indistinctly and marginally apprehended becomes now distinctly and clearly apprehended, how does it matter, or alter the fact that both are *apprehended contents* differing only in distinctness? By what logic and on what principle could you say that the former is the subject, and the latter the object? As apprehended contents or observed concrete psychical groups, they are alike objective. Further, how one group of psychical facts can stand in the relation of subject to another group of psychical facts as its object, is a mystery which no human endeavours can unravel. Then again, the absurdity of the doctrine which seems so plausible *prima facie*, becomes apparent when we approach it a little closer. If we designate the former group of psychical facts which is indistinctly and marginally apprehended by the letter A, and the same group as subsequently distinctly

²⁹ *Appearance and Reality*, p. 81.

³⁰ *Ibid.*, p. 78.

³¹ *Ibid.*, p. 80.

apprehended by the letter B, then, for B to be so much as recognised that it was formerly A, it is necessary that both A and B should be equally present to a common subject which apprehends and transcends both. The fact of recognition or *Pratyabhijña*, as Śāmkara points out, is the hard rock, on which every theory of self which omits to consider it as an abiding subject, must ultimately founder. Bradley's doctrine of interchangeability of subject and object, self and not-self, must therefore be pronounced to be a gross fiction and an unfounded dogma. Any doctrine which slurs the foundational position of the subject does violence to the very foundation of right philosophical thinking.

The uniqueness of the subject-object relationship.

We have now sufficiently made clear the unique nature of the subject as distinguishable from everything that is objective in character. It is but a necessary corollary from this that the subject-object relationship should be a unique relationship distinguishable from every specific inter-objective relationship. The growing realistic tendency in some contemporary philosophical circles disputes the uniqueness of the subject-object relationship, by asserting that mind or consciousness is on a par with other physical objects with the only difference that, while the former has a distinctive mental character, the latter are indisputably non-mental. The realists who subscribe to this view shrink from ascribing any privileged position to mind or consciousness. Prof. S. Alexander is a notable champion of this view; and for the lucidity and cogency with which he presents the case, he may well be considered the mouthpiece of his tribe. For Prof. Alexander, cognition, " instead of being a unique relation, is nothing but an instance of the simplest and most universal of all relations ".⁸² " This," he says, " the relation of the mind to its object the table, is precisely of the same order as that between the floor and the table. Only the floor is not conscious, and consequently is only affected by the table so far as it can be."⁸³ That mind cannot belong to the same order of existents to which the floor or the table belongs, must, we believe, be sufficiently clear from what we have already said about the transcendental nature of the subject. Alexander does concede that mind has the peculiar quality of knowing which other objects have not, but he sees no reason why for the matter of that it should be accorded a privileged position in reality. Mind with its quality of knowing is on a par with other existents having their own specific qualities. In all this, however, Alexander overlooks the fact that the quality of knowing (if at all

⁸² *Space, Time and Deity*, 2, p. 82.

⁸³ *Ibid.*, p. 103.

it can be called a quality) is generically different from all specific qualities of other existents. The knowing quality of the mind, in so far as there is no existent which is neither a known nor a knowable, puts it in relation with *all existences*, and thus makes it the centre of reference of the entire objective universe. As all existence is *for* mind, mind is central in a sense in which no particular existent can be central. .

To expose the fallacy of taking mind as an object among other objects and merely with a distinctive quality of its own, we should examine closely the realistic analysis of knowledge which is so succinctly put forth by Prof. Alexander. In every cognitive situation, says Alexander, there are two elements compresent side by side, an act of mind which is 'enjoyed' and an object which is 'contemplated' and is distinctly non-mental in character and therefore independent of the former. Now, this analysis of the knowledge situation, as a recent critic²⁴ tellingly points out, may be a faithful description of psychological introspection and a helpful hypothesis for psychological science, but as an epistemological enquiry into the ultimate conditions of knowledge, it puts forth results which are far too inadequate. We cannot solve the epistemological problem of the possibility and conditions of knowledge by a psychological approach to it; for psychology as a science already presupposes those ultimate conditions which are the general conditions of the possibility of all knowledge. Mind, as a series of introspected or enjoyed facts, is distinguishable from the subject of this series—the subject which epistemologically is the most ultimate principle of objectivity. Prof. Alexander's analysis of the knowledge situation, as Mr. Mukerji rightly points out, is vitiated by a fatal ambiguity between mind as an object and mind as the subject. When mind is objectively viewed as an introspected mental act or a continuum of mental acts, it is simply taken as an existent with its peculiar quality of knowing, on a par with other existents : "The plant lives, grows, and breathes, and twines round a stick. The material body resists, or falls, or sounds when struck, or emits light when touched by the sun. The mind knows."²⁵ But when Alexander construes mind as the subject which cannot be turned into an object, he distinguishes its facthood as 'enjoyed' from the facthood of objects which are 'contemplated'. We have an enjoying awareness of the mind and a contemplated awareness of objects. Although the realistic bias of Alexander drives him to declare that "our mind is an experience for us alongside of the other existences in the world", he is not blind to the fact that "it is experienced

²⁴ See Mr. A. O. Mukerji's *Self, Thought and Reality*, Ch. XI.

²⁵ *Space, Time and Deity*, II, p. 81.

differently from them."²⁶ Our complaint is that he is not sufficiently alive to the nature of the difference which is so vital for idealistic philosophy. The relation of mind to object must be distinguished from the basic subject-object relation. When Alexander speaks of the compresence of mind and the object, the very idea of *compresence* implies a common subject to which both the mind and the object are simultaneously present. We cannot intelligibly speak of a compresence of two entities without implying a fundamental unity of consciousness which embraces the two entities and is inclusive of them.

The self, then, in its ultimate meaning is the transcendental consciousness, the base and foundation, and the inexpugnable pre-supposition of experience, including within it all the diversity of its contents, facts and relations, in short, all that go to make it a cosmos. The self construed as the ultimate subject of experience cannot be equated with anything that in any sense is objective to it, although we may never know the subject as not correlated to an objective. The subject has no meaning except in its distinction from the objective, and we shall presently see, in its *freedom* from the objective. The objective, in our sense, includes the entire world of extra-organic objects, the bodily organism and the whole field of psychical contents, which though psychical, is yet objective, being comprehended by the subject.

The subject as freedom.

The subject, we said, is distinct from the object and that this distinctness amounts to its total freedom from everything that is objective. The freedom of the subject requires some elucidation here. The most general relation that obtains between subject and object is the relation of knowing. The subject is what knows or comprehends the object, taking knowing in its most generic sense of awareness, including under the term what is known as 'a simple apprehension' or bare awareness. The nature of the knowing function indicates the freedom of the knowing subject from the known object ; for knowing consists, as Prof. Bhattacharya points out, of a "free reference of the subject to the object". "The knowing function," he says, "represents a positive mode of this freedom : the freedom of the subject to relate to the object without getting related to it, which is believed to be more certain than the object but is not known. We are aware of knowing a content when it is formulated and believed to be independent of our formulating, speaking or distinguishing act."²⁷ In self-distinguishing itself from the object, the subject realises its freedom therefrom, and more so according as it more

²⁶ *Space, Time and Deity*, I, p. 11.

²⁷ *The Subject as Freedom*, p. 28.

and more dissociates itself consciously from the objective. The free nature of the subject is intelligible from the very fact of its being a knowing principle. The knowing principle cannot be a part or product of the known continuum. It is only a *free* principle that is capable of distinguishing itself from what it knows. "In virtue of his character as knowing, therefore," says Green, "we are entitled to say that man is, according to a certain well-defined meaning of the term, 'a free cause'."³⁸ The subject is a free cause, Green is careful to add further, not in the sense in which a natural event is a cause, being an invariable antecedent or a set of antecedent conditions on which the effect is invariably sequent, but in the sense that it has no antecedents, and by virtue of its *self-originated* activity renders the manifold of experience into an ordered 'world'. In nature an "antecedent event is in turn dependent on other events; any particular sum of conditions is determined by a larger complex, which we at least cannot exhaust. But the condition of the possibility of this relation in either of its forms—the condition of events being connected in one order of becoming, the condition of facts being united in a single system of mutual determination—is the action of a single principle, to which all events and facts are equally present and relative, but which distinguishes itself from them all and can thus unite them in their severality".³⁹ In knowledge then, we have the surest proof of the freedom of the subject. Only a subject that is in *itself* free from the objective can be *capable* of self-distinguishing itself from the objective. The freedom of the subject is in no way incompatible with its essential correlation to an object. The subject is not simply the central nucleus which organises around it a diversity of psychical contents. To construe it as the nucleus of an organism is to bring it within the orbit of an organism and deny its transcendental nature. To say that the subject is a unity in diversity is not enough, unless we bear in mind that it is a unity to which the diversity is *transcendentally* co-ordinated. Bradley's⁴⁰ puzzle of harmonising unity with diversity, which alone can render the concept of a self intelligible, is easily solved when the self is viewed as the transcendental principle of co-ordination. Bradley is right in maintaining that within the concrete totality of the individual's psychical contents, it is impossible to find a principle of unity which will remain unaffected by the totality; and failing to find such a principle of unity there, the self's

³⁸ *Prolegomena to Ethics*, p. 85.

³⁹ *Ibid.*, p. 86.

⁴⁰ It may be noted that so far as relational experience is concerned, Bradley finds everything self-contradictory and enigmatic therein, and therefore only *appearance*: but he failed to see that relational experience, as such, requires as its inexpugnable presupposition the *relationing* principle of consciousness, which is not an item in the relational cosmos, but is the supra-relational subject of experience.

sameness in the midst of diversity becomes an insoluble enigma. When however the principle of unity is construed as transcendental, it is easy to see that *qua* transcendental, it is unaffected by the diversity which it owns, though effectual in rendering the diversity into a concrete whole. Herein we have a hint of the essential freedom of the subject from the object.

To sum up, our enquiry into the ultimate nature of the self has led us to the recognition of the self as the ultimate subject of experience, the foundational consciousness which is the inexpugnable presupposition of there being a 'cosmos of experience' for us, a consciousness, in the words of Green "not existing in time, but the condition of there being an order in time, not an object of experience but the condition of there being an intelligent experience, and in this sense not 'empirical' but 'intelligible';"⁴¹ a consciousness which, by virtue of its eternally self-distinguishing itself from the object is eternally prior to and free from all that is objectively presented to it. Thus construed as the ultimate subject, the self cannot be equated with any item or section of the objective series, psychical or physical. It is not simply an entity with a distinctive quality alongside of other entities, as Alexander supposes, but the common centre of reference of all entities. Nor can we agree with Bradley in taking the self as a section of the psychical contents, marked off from the rest, and continually inter-changing with it, and therefore only a vanishing appearance. Taylor's conception of the self as a nucleus of dominant interests and purposes is good enough for Biography, History and Ethics, but cannot be accepted as a metaphysical account of the ultimate nature of self for reasons we have already adduced. Construing the self as the subject of experience, we cannot equate it with anything short of basic consciousness, which is the *prius* of the entire objective universe and therefore has a position which is foundational in reality. The self is the transcendental subject of experience.⁴²

III. Is the Self One or Many?

My description of the nature of the self will naturally suggest the question : Is the self, construed as the foundational principle, in reality one or many ? For it is obviously disconcerting to believe that what is the fundamental principle of the universe should be more than one. Now, the answer to this question is not far to seek. The answer inevitably suggests itself to us when we look closer into the nature of self as consciousness. Is consciousness divisible into a multiplicity of consciousnesses, or is it in its very

⁴¹ *Prolegomena to Ethics*, p. 89.

⁴² The subject is 'transcendental', taking the word in its negative signification of 'non-empirical', but not 'transcendent' or out of all relation to experience.' The Kantian distinction between 'transcendental' and 'transcendent' should here be borne in mind. The subject is not an empirical relatum alongside of other empirical relata.

nature one and indivisible ? The latter is obviously the truth ; for we cannot conceive of a division or limitation of consciousness, all division and limitation being *within* consciousness. Consciousness is *ipso facto* one and infinite. It is important to remember that consciousness of finitude is not finitude of consciousness. It is this confusion that we make when we construe the conscious subject as a finite centre of consciousness. It is forgotten that the apprehending consciousness which apprehends something as finite or limited cannot itself be finite or limited. Were it not for its infinity, consciousness would not apprehend anything as finite. Consciousness is in its very nature *all*-subsuming and therefore *one* and infinite.

Self and the Absolute.

A distinction is often made between the self as the individual knower or finite centre of experience and the Absolute as the All-Knower, the Eternal Mind or God. The All-knower doctrine figures very prominently in the philosophy of T. H. Green. Green construes the individual self as a finite centre of consciousness, whose growing knowledge is a gradual 'reproduction' in him of the Eternal Mind or God. The distinction involves the assumption that the subject of our experience is not the ultimate and *originative* source of our knowledge, but merely a passive receptacle of knowledge whose real source is the Absolute behind it. Another entity at the back of the so-called finite knowing consciousness is posited to explain the possibility of knowledge. Now, the knowing consciousness *qua* knowing must needs exceed and transcend all that is known or knowable, which is the same thing as saying that it transcends *all* and is the foundational principle in reality. The knowing consciousness, by virtue of its being the *all*-comprehending principle, cannot be equated with anything short of the First Principle. Its oneness or infinity is implicated in the very fact of its being the knowing consciousnesses. There is an obvious inconsistency in saying that the *all*-comprehending consciousness is not ultimate. To posit another entity in the form of the Absolute behind the knowing subject is to hypostatise an abstraction. The knower is *ipso facto* the All-Knower, and to say that there is a distinct All-knower over and above the knowing subject is an unwarrantable assumption. The knowing subject is the Absolute, if that be our term to designate the fundamental principle in reality.

Royce on the Unity of the Self.

Our view in this connection is in substantial agreement with that of Professor Royce, who rightly observes that the *all*-comprehending and *all*-subsuming character of the knowing self *eo ipso* precludes the possibility of its being many, and commits us to the doctrine of a single self "beyond which is naught, within which is the world". "Were there *many* such

(selves)" he asks, "would not their manifoldness be a truth? Their relations, would not these be real? Their distinct places in the world-order, would not these things be objects of possible true or false thoughts? If so, must not there be once more the inclusive real Self for whom these truths were true, these separate selves inter-related, and their variety absorbed in the organism of its rational meaning? There is, then, at last, but one Self, organically, reflectively, consciously inclusive of all the selves, and so of all truth."⁴³

The self as the knowing consciousness is the prius of all objective existence, and is one, inasmuch as it is *the all-inclusive intelligence within which is all multiplicity and beyond which is nothing*. The knowing principle is one and ultimate, and to differentiate an All-Knower or the Absolute from the so-called finite knower is to grossly misunderstand the nature of the knower as such. The knowing consciousness, as such, is subsumptive of all existence within its comprehension, of anything that in any sense is assertible as existent or a fact. It is therefore the Root Reality to which all conceivable reality is objective, including all that is actually known, all that is believed as knowable, and even all that is problematically formulated as hitherto unknown but knowable in some higher or deeper experience. The only distinction admissible as valid is that between the knower and the known object, and not between an all-knower and a finite knower. The knower *qua* knower is one and basic. To posit anything behind it or beyond it is a mere chimera. The knower is the All-knower.

The Individual Personality.

We may now consider briefly one more point. Our disquisition on the nature of the self may appear too abstract, and far from explaining what a man ordinarily knows as his concrete individual personality or *himself*. How, it may be asked, is the universality of a single self to explain the diversity of individual personalities? An answer to this question can easily be got from what we have said in our foregoing pages. To begin with, let us observe the difference between what *essentially* the notion of a self implies and what a man *ordinarily* means by *himself*. The essential thing about the notion of the self is that it is a self-distinguishing, conscious, identical *percipere*. If I examine closely my direct experience of self-awareness two facts become palpably evident. Firstly, that I am *directly*⁴⁴ aware of myself

⁴³ See Rand, *Classical Philosophers*, p. 831.

⁴⁴ I hold that we have an intuitional or alogical awareness of the self as distinguished from our perceptual or conceptual knowledge of other objects. This integral awareness of the self is distinguishable even from the introspective awareness of psychical facts. Berkeley indicated the difference between the knowledge of self and that of other objects by saying that we have a "notional awareness" of the self. I prefer the word 'intuitional' or 'integral' to 'notional'.

as the conscious *percipere* of the entire objective reality around me, from which I stand *consciously* self-distinguished ; and secondly, that, I am aware of myself as an unchanging identity, a fact expressible in some such formula as " *I am the same I* that I always have been ", with a further conviction that " *I will remain the same I*, so long as I exist ". Conscious self-distinction from objectivity and unchanging identity are the two directly veridical characteristics of self as found in our experience of self-awareness, and are therefore the two criteria for determining philosophically what the self *ultimately* must be. Applying these criteria we find that what a man ordinarily calls *himself* is not really his ' self '. Now, what is it that a man calls himself or his individual personality ? It is usually the psycho-physical organism constituted by his body and his psychic make-up comprising his permanent dispositions and his emotional interests and purposive attitudes towards the various elements of his surroundings, in a word, all that go to make up the identity of his character. Now, we have already seen that in the psycho-physical system as such, changing as it continually is, there is nothing to constitute an unchanging identity that makes the self what it is. Then again, the psycho-physical system, characterised by objectivity as it is, cannot pass for the self, which, as the ultimate subject of experience, stands in conscious self-distinction from all that it objectively comprehends. The psycho-physical system therefore which a man in every-day experience calls *himself*, is only a part of the objective, though marked off from the rest and " appropriated " by the self, and not having the same relation of *otherness* to the self as all other extra-organic objects have. So the body-mind-complex which a man calls himself has meaning and significance for all our ordinary experience and is the basis of differentiating one individual personality from another ; but the fact cannot be overlooked that its objectivity and mutability preclude the possibility of its being the ultimate subject or ' self '. A distinction, therefore, between the *apparent* and the *real* self becomes significant ; and though in our usual course of experience we are explicitly aware only of the former, we can become reflectively aware of the latter. To transform this reflective understanding into what may be called in the phrase of Kant a " perceptive understanding " is the object of all genuine spiritual endeavour.

Śamkara's Theory of Adhyāsa.

The difference between the *real* and the apparent self is the occasion for Śamkara's formulation of his theory of *adhyāsa*. Śamkara's emphatic contention is that the self as the subject of experience (and it is undeniable that there should be such a self) is *ex hypothesi* distinct from everything that is objective and is of an immutably self-same nature ; and yet everyone

in common experience takes the body-mind-complex which is both objective and mutable, as his self (or *himself*). This could only be by what he calls *adhyāsa*, or the natural erroneous tendency to translocate the properties of one⁶⁵ entity to another (of subject to object, and object to subject), the two entities having radically different properties. When in ordinary experience the body-mind-system is called the self, there is the evident mistake of taking as the subject what in its very nature is objective. This same fact may also be expressed, reversing the relation, as the evident mistake of equating the self or the subject with an objective something, of failing to see the subject beyond the body-mind-system as the transcendental condition of all existence. This tendency of taking what is objective as the subject, of understanding a thing as something which it is other than (*atasminstad-budhhih*), is what is known as *adhyāsa*.

A misunderstanding of the theory.

A full discussion of Śaṅkara's theory of *adhyāsa* would be unnecessary for the purposes of the present essay. Yet, I think it advisable to clear away here a very common error with regard to the theory in question. Śaṅkara's theory of *adhyāsa*, it is sometimes argued, is very anomalous, in so far as it becomes incompatible with the ultimate conclusion of his philosophy. The theory presumes a division of reality into two mutually incompatible spheres—the subjective and the objective—while the ultimate conclusion of his philosophy is an emphatic declaration of the oneness of all reality (सर्वं खल्विदं ब्रह्म). This seems to be an anomaly.

Now, the misunderstanding of Śaṅkara's real position, which has prompted the above objection, is due to an initial error of confounding the different standpoints from which Śaṅkara formulates his various conclusions. Every close student of Śaṅkara's philosophy must be familiar with the two standpoints from which he makes assertions about reality—the *vyāvahārika* and the *pāramārthika*, which we may call the rational and the supra-rational or the mystical respectively. From the former standpoint, the standpoint of our ordinary rational experience, all the manifold is real *in its manifoldness*, and so also the duality of the subject and the object, and since this duality is *there* at the *vyāvahārika* level of experience, there is the possibility of *adhyāsa*. But this should not be confounded with the *pāramārthika* level of experience, which is not an experience of the manifold, but the integral experience of the All-whole *Brahman*, which *at this level of experience* is the sole Reality. The sole reality of *Brahman* is a fact of experience *sub specie aeternitatis*,

65 "अन्यस्थान्यधर्मात्मासता", S. B., I., 1.

while the duality of subject and object with its consequent error of *adhyāsa* is a fact of experience *sub specie temporis*. The difference of these standpoints should be clearly borne in mind when trying to understand Śaṅkara on any point ; and failure to keep this difference in sight has been the fruitful source of error and confusion in the interpretation of Śaṅkara's philosophy. So, when we argue that the duality of subject and object which is presupposed by the theory of *adhyāsa* is incompatible with the ultimate conclusion of Śaṅkara's philosophy, we are guilty of the shifting of standpoints during the course of our argument.

The psycho-physical system, then, that is taken as the individual person, is in the last analysis a portion of the total objective continuum, with the additional qualification that it is " appropriated " in a way in which the rest is not ; and for this reason it may be said to constitute the basis of man's *individual* personality. But judging by the ultimate criteria of self-hood, we are constrained to go deeper to find the real ' self '. And this deeper search leads us to the recognition of one foundational, Eternal consciousness as our *self*. We, as body-mind-complexes merely, are not the experiencers but simply a part of the experienced objective. That which is the Supreme Experiencer in us and for that reason our real *Self* is the Ultimate Knowing Consciousness, " the master-light of all our seeing ". Of this we can be absolutely certain, for it is the presupposition of presuppositions, that without which there would be no experience whatsoever. In our ultimate search after the meaning of the self, then, we are brought to what Royce has called " the larger self ", " the one Self ", the Eternal Infinite Consciousness, the First Principle in reality, which being there, everything *is*. Of what is deemed to constitute the *individual* personality, the psycho-physical system which a man calls *himself*, the destiny and wheretofore may be unknown to us, and perhaps beyond the reach of limited human knowledge, as much as the ultimate explanation of the objective universe is always an unattained goal to us ; but of the Eternal Subject of all knowledge, in all its course of development and fruition, there can be no denial or doubt.

The " larger self " as the Highest or God.

In this " larger self " we have the Highest of our religious faith, God or Absolute or whatever name you choose to give it. As the matrix of all knowledge, actual and possible, It is the Eternal Omniscient or the divine Logos. Royce vindicates this truth in a telling manner. That the all-encompassing Unity of the self, the *one* self, which is the inexpugnable presupposition of there being *one* world, is no other than the Eternal Mind, which *eternally has* all objects and knowledge about them, which we in the course of

our finite experience realise bit by bit and never exhaust, is borne out, Royce points out, by the very nature of knowledge-relation that obtains between the self and the object it knows. A closer scrutiny into what is implied in the fact of knowing an object reveals the nature of the knowing self.

Royce draws our attention to the curious relation in which the object known or thought about stands to the knowing self. 'The object known or thought about may be anything, a presently sensed fact, a distant star, an event centuries remote or some such thing as the day of my death; but in spite of the specific differences in the characters of the objects known by me, there is a common characteristic of all objects *qua* objects. When I know or think about an object, it is not enough that I should have in me an idea resembling the object, but I must mean to have the idea resemble that object.'⁴⁶ This peculiar character of *meaning* an object of thought is a highly significant feature of every cognitive act, which for the sake of clarity, I express here in Royce's own words: "to think of an object you must consciously aim at that object, you must pick out that object, you must already in some measure possess that object, enough, namely, to identify it as what you mean. But how can you *mean*, how can you *aim at*, how can you *possess*, how can you *pick out*, how can you *identify* what is not already present in essence to your own hidden self? Here is surely a deep question. When you aim at yonder object, be it the mountains in the moon or the day of your death, you really say 'I, as my real self, as my larger self, as my complete consciousness, already in deepest truth possess that object, have it, own it, identify it. And that, and that alone, makes it possible for me in my transient, my individual, my momentary personality, to mean yonder object, to enquire about it, to be partly aware of it and partly ignorant of it.' You can't mean what is utterly foreign to you. You mean an object, you assert about it, you talk about it, yes, you doubt or wonder about it, you admit your private and individual ignorance about it, only in so far as your larger self, your deeper personality, your total of normal consciousness already *has* that object. Your momentary and private wonder, ignorance, inquiry, or assertion, about the object, implies, asserts, presupposes, that your total self is in full and immediate possession of the object. This, in fact, is the very nature of that curious relation of a thought to an object which we are now considering.... The self that *means* the object is identical with the larger self that possesses the object, just as when you seek the lost idea you are already in essence one with the self that possesses the lost idea."⁴⁷

⁴⁶ That is, the 'object' also is known as adequate to or conforming to the idea attached to it. The object is not an alien *ne plus ultra*.

⁴⁷ Quoted from Rand's *Classical Philosophers*, pp. 828-29.

Thus we are led to the recognition of *one basic self* which possesses all objects and knowledge about them, prior to our individual and particular cognitions, the Self which knows in unity *all* truth, the divine Logos which holds the solutions of our greatest problems and the answers to our deepest queries. All seeking, all problem-raising, it presupposes, implies, the presence to our larger self of the objects of our search and of the solutions of our problems. How else could it be possible for us to *identify* the objects so found as those we have been seeking, or the solutions we come across as really those which answer our problems? All knowledge, said Plato, is reminiscence or what we may call *identification*. Every cognition is in the last analysis a *recognition*.

Not only in the case of a true knowledge about an object, but also in the case of *error* about some object, we find the indication of a larger self which *possesses* the object about which there is the error. "As the true believer meaning the truth that he believes must be in real relation thereto even so the blunderer, really meaning as he does the fact yonder, in order that he should be able even to blunder about it, must be in so far in the real relation to truth as the true believer. His error lies in missing that conformity with the meant object at which he aimed. None the less, however, did he really mean and really aim; and therefore, is he in error, because his real and larger self finds him to be so."⁴⁸ This larger inclusive Self, then, is the presupposition alike of truth and error.

Strange though it may seem, we have at last come to the conclusion that our real Self is the Supreme Spirit, the divine Logos, the stay of all knowledge, existing everlasting, "the Teacher of even the most ancient teachers"⁴⁹ as Patanjali calls Him; our self, not of course, in the sense of a limited finite individuality, but in the only ultimately tenable sense of the *ratio cognoscendi* of the entire objective reality which includes within it the psycho-physical organism which is taken as the basis of one's individual personality. The ordinary monadistic view of the self as an isolated self-contained unit, numerically distinct from others, adopts a radical empiricist standpoint which takes, in how-so-ever disguised a way, the psycho-physical organism as the basis of numerically distinguishing one individual from other individuals; but it does not go deep enough to realise the self in the character of an all inclusive consciousness which is the ultimate unifying bond of all multiplicity in experience. But when we have thus construed the self, we find it to be, as the ancients have always taught us, no other than the Supreme.

⁴⁸ *Ibid.*, p. 829.

⁴⁹ सपूर्वसामिपि गुरुः कालेनानवच्छेदात् । *Yoga Sutra*, I, p. 26.

The self in us is the Immense and the Immeasurable, the *Brahman*. It is a wise ancient saying : " Thy God to thee, is the soul of thy soul."

REFERENCES.

1. Alexander, S., *Space, Time and Deity*, Vols. I and II.
2. Bradley, *Appearance and Reality*.
3. Bhattacharya, K. C., *The Subject as Freedom*.
4. Das, R., *The Essentials of Advaitism*.
5. Green, *The Prolegomena to Ethics*.
6. Haldar, Hiralal, *Neo-Hegelianism*.
7. Mukerji, A. C., *Self, Thought and Reality*.
8. Rand, *Modern Classical Philosophers*.
9. Ranade, *A Constructive Survey of Upanishadic Philosophy*.
10. Taylor, *The Elements of Metaphysics*.
11. Vacaspati Mishra, *The Bhāmāti Chatussūtrī* (Suryanarayan Sastrī's Ed.).
12. Watson, *The Philosophy of Kant*.

THE BIOCENTRIC PHILOSOPHY OF LUDWIG KLAGES.

By DR. D. G. LONDHE, M.A., PH.D.,
Principal, Wasudeo Arts College, Wardha.

THE Philosophy of Klages stresses a very noteworthy tendency among the thought-currents in Germany at the present time. It is a powerful expression of a profound philosophical conviction that reality cannot be grasped through reason and that life cannot be apprehended through forms of thought and categories of the understanding. Klages places life in the centre of things, and requires philosophy to face life and not to turn its back on life. For biocentric philosophy, life is more than theory, wisdom more than learning. The biocentric philosophy as opposed to logocentric philosophy marks a continuation of the line of thought advocated by Nietzsche and Bergson. Klages' philosophy is an expression of a romantic feeling about the world. His writing, though unsystematic, nevertheless, abounds in penetrating reflections. In place of the language of understanding, Klages substitutes the language of feeling ; instead of employing the logic of concepts, he uses the logic of symbols as an instrument of philosophising. The biocentric philosophy of Klages is thus seen to be essentially anti-intellectualistic and intuitive. He vehemently protests against the belief that Logos is the central and the highest principle in man. Logos is inimically disposed to Life, and thought exercises a disturbing influence on life. He tells us that though there is in him, as in every man, a tendency, nay a passion, for knowledge and research, it is not necessary to suppose, on that account, that this passion is the most valuable asset in life. One is reminded here of Jacobi's dictum " Reason must be the servant and not the law-giver of nature ". Nietzsche has also said " Life is the higher ruling force ; for, knowledge which would destroy life would itself be destroyed in it ".

Klaces draws a very sharp distinction between Life and Spirit. This dissonance of Life and Spirit is a fundamental point in his philosophy and plays an important part in the discussion of many topics in his philosophy. In fact he claims the discovery of this dissonance as his special merit. Klages' chief work, "The Spirit as the Contrary of the Soul" (*Der Geist als Widersacher der Seele*) aims at presenting a world-view as based upon the fundamental dissonance between Life and Spirit. Spirit is in and for itself : a fact which breaks in upon the cosmos of life and soul from without. Life, on the contrary,

is a rhythmic Becoming of the qualities of the Real, which are subject to a process of incessant change in Space and Time. The coming together of these two principles leads to the existence of a concrete person, as is exemplified in the case of a human being, the term existence being understood here in the sense of a specifically human mode of being. The Dissonance of Life and Spirit cannot be logically demonstrated, but only experienced and lived through. It belongs therefore to a prelogical stage. And because logic and science in general cannot start without a conceptually demonstrable dissonance, Science is for that very reason to be characterised as a depotencified procedure incapable of understanding Life in itself.

The "I" is the point of contact between the two principles of Spirit and Life. Spirit, grounded and imbedded in Life, is the "I". In fact the "I" is individualised and personified Spirit. Individualisation, however, brings in its wake tensions and conflicts of feelings, *viz.*, pleasure and pain, love and fear, egoism and altruism, and inclination and duty. The "I" is the medium through which Spirit executes acts of will and comprehension, and thus comes into relation with the external world, which might be regarded as the realm of the "It", as distinguished from the realm of the "I". Klages characterises the "I" as the substratum of an act, the "It", as the substratum of an event. The realms of the "I" and the "It" meet in our person, inasmuch as it is a unity of mind and body, thought and life.

In the dissonance of Life and Spirit, Klages regards Life as the Real and the Spirit as the Unreal. As this is rather an unusual view of Reality and Unreality, it will be necessary to be clear about the meaning of the term Real and the criterion of Reality implied therein. The Real, according to this view, is that which 'works', acts, produces effects; the Unreal, on the contrary, is that which does not 'work', does not act, and produces no effects. Life, or Soul, is a rhythmic becoming, incessant change, and hence it is real. Spirit, on the contrary, is absolutely static, neither acting nor being acted upon, and hence it is unreal. Klages symbolises the rhythmic happening in the realm of Life by a waveline, and the inroad of Spirit upon the realm of Life by a straight line meeting the direction of the waveline of happening at right-angles. The dynamism of Life then, constitutes the reality of Life, and the staticism of Spirit constitutes its unreality. The criterion of reality seems to be drawn in this mode of thinking from the attitude of every-day life and the philosophy of common sense. For we ordinarily distinguish a real thing from an unreal one by its activity and effectiveness. A real serpent, for instance, moves and bites, while a toy-serpent made of rubber does not move itself, does not bite. A closer consideration, however, will show that this criterion

of reality, *viz.*, that which acts, is effective, is real, is logically and metaphysically untenable. For, we know that things which are universally accepted as unreal also are effective. (Note that the German word for real "wirklich" is derived from the root 'wirken' to work, to be effective.) The screen figures and events are obviously unreal, but they do produce effects of joy and sorrow, love and hate, sympathy and scorn in the minds of an audience. Moreover, as is pointed out by Sankara, illusory objects can produce real effects ; a dream serpent, though illusory, causes real palpitation of the heart of the dreamer, which persists even after his waking. It will be clear from these considerations that the criterion of reality that Klages employs is metaphysically untenable.

According to Klages consciousness arises first only then when experience is met by spiritual comprehension in the so-called "limiting quality which is the substratum of the act". This means that the "still flow" or "pure duration" which is mere existence of spirit comes to a point in the form of a conscious act, this being the extreme limit of the realm of Spirit. Consciousness is by no means an exclusively psychological category, it is as well an epistemological category. Klages' treatment of the category of consciousness is, so to say, psycho-metaphysical rather than psychological, as it seeks to explain and interpret man's existence as a consciously experiencing person in a metaphysical way. The "I", which is the central problem of metaphysics, according to Klages accomplishes a knowing act ; and thus Spirit in the "I" meets the objects through the medium of experience. Klages characterises "conceptual thinking" as a manifestation of "Spirit as consciousness" and "suggestive thinking" (referring thinking, as through symbols) as an expression of "Spirit in consciousness". The "suggestive thinking" enables the Spirit to come into direct cognitive contact with life through intuition. In the biocentric enquiry it is claimed that one can acquire genuine knowledge of truth through suggestive and "referring" symbols.

In biocentric philosophy Life is viewed as manifesting itself in polarity. In nature every formation or movement has necessarily two extreme sides, or opposite poles. But the two poles, though apparently divergent and contradictory to each other, are found on closer scrutiny to be but two expressions of one and the same basic fact or law. The inner connection between the two polar phenomena is so vital that one can hardly come into being without the other : there can be no north without south, no right without left, no up without down. Perhaps body and soul also are such polar phenomena, which are expressions of a more general polarity of matter and spirit. It appears that it is the inner necessity of the nature of the One to manifest in Two. It is as if the stream of Life flows in the initial stage of its course

in a unilinear stream and then branches off into a bilinear form. The most characteristic illustration of the phenomenon of bipolarity is Man-Woman dimorphism in the realm of organic life. Goethe, while recognising the principle of polarity, mentioned not only Man-Woman dimorphism but also Light-Darkness dimorphism. The philosophy and psychology of Man-Woman dimorphism has been a favourite theme in the writings of Herder, Humboldt, Baschofen and Palagy.

Klaces regards the masculine and the feminine as symbols of Spirit and Life (or Soul) respectively. The other symbols which are also used to symbolise the Spirit-Life dissonance are Day and Night, Future and Past, Right and Left, Up and Down, Space and Time. This brings us to the problem of symbolism. We have already remarked that the biocentric philosophy substitutes the logic of symbols in place of the logic of concepts which had been the exclusive instrument of philosophising in the logocentric world-view. Now, the question arises, what is a symbol? A symbol is defined as a "concrete visible sensum which represents (*i.e.*, stands for) some meaning".¹ It will be easily seen from this definition that a symbol is not valuable in itself, but it is valuable only so far as it represents, or stands for, something else. A symbol is a concrete totality, and as such does not dissect and in dissecting destroy the original, meant whole, as a concept by its inherent abstracting nature does. A symbol is not something fluid and floating but on the contrary something clear and concrete. A symbol expresses concretely what is in itself abstract, it is a bond between a concept and an object. The distinction between a symbol and a mark is very significant. A mark abstracts a particular characteristic from an object which it marks. A symbol stands wholly and completely for something else. Whereas a mark is a partial characteristic, a symbol is a total representative in miniature. In short, a symbol stands for something else that is behind and beyond it. It is naturally to be expected that a symbol cannot be so precise in meaning as a concept, and leaves room for a variety of interpretations; but in symbolic thinking this elasticity of meaning is intentionally accommodated, under the belief that in nature existence of a thing has innumerable aspects and the door to the intuiting of these aspects should not be closed with the key of a hardened logical concept.

For Klages, Day symbolises Spirit, and Night, Life. Day is the symbol of the first order. Day will be further symbolised through Future, Space, Light, Up, Man,—these being the symbols of the second order. When Spirit is symbolised by Day in Klages' philosophy, it is not, at any rate, meant that

¹ Eisler, *Handwörter Buch der Philosophie*, 1922, p. 647.

Spirit *is* Day. Such an identification would revolt against the very spirit of symbolism. To understand the meaning of the Day symbol, it will be necessary to see which are the qualities that Day stands for. Day suggests brightness, clarity, light ; and hence Spirit as symbolised by Day means an existence which is characterised by self-luminosity, knowledge, consciousness. But the brightness of the Day may produce a 'glare' which dazzles the eyes and prevents the perception of things in their true perspective. In this strain Klages speaks of Acosmism of Spirit, which shows a tendency to disturb and sometimes even to destroy reality. The very fact that death ends Life, or rather, that death is a part of Life itself, is a sure indication, according to Klages, of the hostility which Spirit betrays towards Life and reality. Spirit is thus a foe and not a friend of Life. This inimical disposition on the part of Spirit is one main reason why Klages condemns Spirit as anti-real. The waking-sleep polarity corresponds to the day-night polarity and leads to a novel view-point of looking at the phenomena of waking and sleep. In waking we are too much occupied with the logical relations of time, space and causality. The tyrannical bondage of logical concepts so ties us down to the factual space-time continuum that we are far removed from the realm of our original self-hood. The Dream delivers us from this bondage to external reality. Similarly ecstacy also exercises a liberating influence. Dreams and ecstacy open perspectives for us, which are not ordinarily accessible to us. It is in this sense that Hyperion-Holderlin says, "A man is God when he dreams, a beggar when he reflects". The day-like Spirit disturbs and destroys sleep which is sometimes rich in dreams. It will not be right, therefore, to complain that sleep robs us of a considerable portion of our life. Dream, Vision and Ecstacy give us, according to Klages, valuable revelations of the Real. This unusual interest in and over-valuation of the significance of such states as dream and ecstacy is but an aspect of the so-called demonism in Klages' philosophy.

Demonism is a view according to which there are in the world magic and mysterious powers, which move the material bodies and determine, perhaps, also the destiny of the individual. The exact nature and the mode of working of these demonical powers is far from being clear. Klages tells us that the nature and working of these demonic powers may be inferred from the 'cloud-like' becoming, growth and decay observable in the empirical world. Metaphysically speaking the demons are the eternally changing qualities of things. Qualities are also spoken of as "pictures" (Bilder). Pictures may be understood as phenomena, if by phenomena, it is not the substances that are meant but only qualities. The "pictures" are the "living and en-souled powers". This will be clearer in the light of

Klages' theory of matter. According to his theory it is not Matter that lives, but the picture (i.e., quality or demon) which wanders from a material body to another : in the cycle of events, really lives. Soul is nothing but one such picture which is associated with Matter. The power of the pictures is a " magical power ", and this magical power does not move Matter from without, but changes Matter from within. For Klages, the individual is an entity which is " filled " and directed by " demons ", that is, magic powers that change the cosmic contents from within. He speaks of water as being filled with demonic powers. Such a view no doubt sounds more mythological than metaphysical and may be designated as magical idealism. It is a pluralism which regards the qualities, instead of substances, as the ultimate ontological categories. This realistic hypostatisation of qualities is akin to polytheism, inasmuch as the qualities are viewed as demons. Klages' demonism appears to be a world-view mirrored in the *Atharva-Veda*, which, however, was not worked out there into a systematic metaphysical doctrine. The world as depicted in the hymns of the *Atharva-Veda* is the world where ghosts and goblins, devils and demons rule and control the course of events in nature and direct the affairs in the lives of men. The belief that the elements and the natural phenomena have each of them a presiding deity indwelling in it, is frequently met with in the religio-philosophical literature of ancient India. The " Antaryami " doctrine of the *Brihadaranyaka Upanishad* is only a monistic version of a pluralistic doctrine of the Devatas directing the natural elements from within.

Klages' philosophy lends a theoretical justification for such practical disciplines as characterology, graphology, etc. The dictum " The body is the appearance of the soul, the sense of the living body "² is the fundamental thesis for the science of expressions as studied in its various aspects. Every bodily movement is an expression of the experience of the knowing, feeling and willing soul. Writing is the most meaningful expression of the mental-make-up of a man, and hence a careful study of a man's handwriting should reveal many of the characteristic qualities and tendencies of a particular individual. Klages' philosophical justification of graphology has given a powerful impetus to the study and practice of graphology in Germany at the present time. It is to be specially noted that Klages is not much interested in the cheap and popular art of reading the handwriting, but he endeavours to build a theoretical system out of handwriting as one expression, among others, of the inner personality which seeks to manifest itself in various aspects, and through different channels.

² *Ausdrucks-bewegung und Gestaltungs Kraft*, p. 16.

Klages did not attract much attention in the initial stages of his philosophising, mainly because of unacademic method and emotional and sentimental style, which largely employs the language of feeling instead of the language of logical concepts. Begun just at the beginning of this century, Klages' work was known only to a few in 1910 ; but in 1925, however, it had to be recognised even in academic circles. To-day Klages' philosophy shows its influence on many different scientific disciplines such as psychology, psychiatry, medicine, religion, etc., and has occasioned enquiries and researches on many problems on the lines opened by his theoretical suggestions. His theory of hysteria as a split in instincts caused by Spirit, is judged to be as valuable as that of Kraepelin, Kretschmer and Freud. Prinzhorn and Deubel have done much to carry further the line of Klages' thinking.

The fundamental metaphysical thesis of Klages' philosophy is the dissonance of Spirit and Life, and its corollary, the reality of Life and the unreality of Spirit. This thesis raises many critical issues. Firstly, is the criterion of reality here implied, namely, the real is what effects changes, a valid criterion ? Obviously not ; for, that which changes is liable to contradiction. Reality is described as what changes in time and space, and as Spirit does not change and is not in time and space, it is condemned as unreal. This description of reality only gives an empirical mark of reality, and even if the Spirit is not real in the empirical sense, the possibility is not excluded of its being real in the truly metaphysical sense. That the Spirit is not in time and space and does not change, may not be its defect, but may be on the contrary, its glory ! Secondly, it looks like a veritable mystery, why such contrasted entities as Spirit and Life should come to be associated with each other in the concrete existence of a person. That Spirit and Life come to inhabit a personal existence cannot be merely an " accident ", but must naturally indicate some higher cosmic purpose, as has been rightly pointed out by Dr. Deussen.⁸ For cosmos comprises both Spirit and Life, and the dissonance between Spirit and Life cannot, therefore, be so exclusive as Klages has endeavoured to make out.

⁸ Klages' *Kritik des Geistes*, p. 150.

FINAL REPORT ON THE EXCAVATION IN THE MAHADEO HILLS.

BY DR. G. R. HUNTER, M.A., D.PHIL.,
Robertson College, Jubbulpore.

THE work of excavating the rest of the floor of the shelter down to bed-rock was recommenced on March 4th, 1935, and continued down to April 6th, by which date the entire floor of the rock-shelter was exposed. The soil was sieved as before layer by layer, and area by area, and the finds sorted out, classified, and recorded. The details of operation will be found in the field notes (Appendix X) and the results obtained in the catalogue (Appendix XI) which should be read together with the field notes. The excavation was carried out at my own expense, and without the assistance of a trained surveyor; consequently the figures regarding the depth of any particular layer of soil removed are only relatively, not absolutely, accurate. From time to time the actual depth of a particular point was checked by measurement with the datum line, while the depth of the bed-rock or floor of the cave was carefully measured from the datum, and the results recorded on a plan in contour (Appendix XII). On average it would appear that the depths of individual layers of soil removed recorded in the field notes should be diminished by one-third.

In general it may be said that the new excavations do little more than confirm the conclusions provisionally recorded in my interim¹ report. No other skeleton was found; and the fragments of the human skeleton reported on in para 5 of my interim report, when taken to London for examination were too fragmentary to permit of racial identification (Appendix XIII). The pottery, as usual found almost entirely within a few inches of the surface, i.e., in the first fifth of the total depth of the deposits covering the floor, was collected together and submitted to Mr. K. de B. Codrington, of the Indian Section of the Victoria and Albert Museum for report. Unfortunately his report has not yet been received. A few fragments that seemed of more particular interest have been photographed (Plate III, Fig. 6). One of these pieces has already been featured and discussed by Major Gordon in the *Illustrated London News* (Sept. 21st, 1935). It is possible that the pottery of the cave may contain evidence of historic importance, but on this point I am not prepared to speak, not being a ceramic expert. If, however, Government

¹ See Nagpur University Journal, Vol. I.

intends to preserve my finds in some single centrally situated institution like the Museum at Nagpur, the pottery will no doubt receive expert attention at the hands of competent technicians in India at some future date. The same assumption applies to the bone fragments, the wood, charcoal, and other miscellaneous objects, regarding which I am not qualified to offer an opinion.

The new excavations confirmed my previous conclusions on the following points :—

(1) There is no sterile layer separating the modern stratum from the mesolithic stratum. The modern age with its pottery, beads, etc., follows immediately on the mesolithic with its microliths. Neolithic man is conspicuous by his absence : not a single polished stone object or bone implement reminiscent of him was found anywhere in the deposits ; suggesting that in these mountain retreats mesolithic man lingered on until he was directly superseded by modern man.

(2) There is no trace of pre-mesolithic occupation. Roughly speaking the mesolithic stratum occupies vertically two-fifths of the total deposits ; i.e., when the deposits were at their maximum depth of approximately 5 feet, the modern layer, prolific in pottery, extends to a depth of 1 foot from the surface, the mesolithic layer lying from 2 to 4 feet. Below this came another two-fifths (at maximum a little over two feet) of absolutely sterile soil as far as man and his work was concerned. I conclude therefore provisionally, on the evidence of the one shelter that has been entirely excavated, that Palæolithic man never inhabited the Mahadeo Hills. That is the answer to query (c) in para 8 of my interim report. Query (a) regarding the race of our mesolithic inhabitants must remain unanswered. Query (b) will, I believe, be solved by the evidence I have now collected.

Dividing the mesolithic stratum into three sections according to depth—upper, middle and lower—I have carefully tabled my finds, taking care to place the implements found in the same area at different levels in their correct sequence. The implements thus tabled have been photographed (Plates I and II, Figs. 2 to 5). To me it appears that there is a definite cultural development discernible in the technique of the flacking, leading to the evolution of patterns more exactly suited to the purposes determined. But to work the matter out prolonged examination, comparison with other sites and consultation with other workers in the mesolithic field will be required. All I care to say at present is that I think I have secured unique evidence of the true sequence of mesolithic cultures in India. If so, the evidence will be not without interest in the determination of mesolithic cultural sequence in the world generally. Indeed it was for this purpose that I started my excavations in 1932 and in

this hope that, encouraged and assisted by my friend Professor Henry Balfour, F.R.S., I have continued. The classification given in the catalogue of the implements shown in the photographs is as regards serial numbers up to 48, Professor Balfour's, as regards the remainder, my own. Professor Balfour would be glad to exchange certain of our implements for similar ones that he has collected from Tardenoisian and Capsian sites in Europe and Africa, and in the interest of our C.P. collection I would advise the exchange. I cannot conclude without mentioning the assistance I received from my wife who worked with me throughout the excavation, spending some two hundred and fifty hours in the cave, and who during the period when I was laid up by illness carried on the work in my absence.

APPENDIX X.

Field Notes.

March 4th, 1935.—Revisited cave that formed subject of my interim report and continued exploration and excavation from the point where I had left off. Started with area D2-E \times 14-11 (see plans given in interim report, Appendix V) Removed layer of two to three inches from depth of 126 cm. below datum on 14. In this area (Serial No. 48) as also in the next three (Serial Nos. 49 to 51) the layer removed consisted of red murrum and pebbles. In these four areas quartz flakes and implements were found (see Catalogue of present report, Appendix XI) but nothing else.

Area D-H \times 11-6 was now excavated (serial No. 52) and a layer, of from one to four inches thick, of soil lying above rocks was removed. Unfortunately with this layer had become mixed soil from under the adjoining rock-shelf along H, which had apparently been removed by some unauthorised person since the data of my earlier excavations. The charcoal and soil miscellaneous fragments found here probably all came from this rock-shelf. As for the layer itself it is highly probable that from it came the flakes and the quartz implement. The layar was at 133 cm. below datum on 11 \times E, and 104 cm. b.d. on 11 \times H.

It will be noted that throughout the area excavated this day the surface at the commencement of operation lay from 40 to 50 cm. below the original surface; and that except for No. 52 (which had been salted by admixture with rock-shelf soil, as already stated) practically nothing was found to connect with man except quartz flakes. Pottery was entirely absent.

March 5th, 1935.—Removed rocks lying 10-6 \times D-H, (53) exposing a layer of about 4" of soil (of which a sample was taken) lying under the smooth and level underside of these rocks, and lying immediately upon the bed-rock of the cave. It would seem that this layer antedated human occupation, being

absolutely sterile except for the presence of tree roots, living and decayed. The odd fragments of charcoal and flakes collected probably fell in from the adjoining rock-shelf in the process of removing the rocks. The rest of the rock-shelf soil was now removed and examined in two portions; first the upper level (10-6 x H from about six to eighteen inches above bed-rock) (serial No. 54), and next the lower level from bed-rock to six (in places twelve) inches above bed-rock (serial No. 55) No. 56. Excavated layer of 3 to 4" from 110 cm. below datum at 17 x F and from 93 cm. below datum at 17 x H in area E-H x 17-14. Found charcoal and flakes. No. 57. Excavated layer of 3 to 5" from 102 cm. b.d. at 20 x E and from 90 cm. b.d. at 20 x H, in area E-H x 20-17.

March 6th, 1935.—Started to remove one foot from whole of area D-H x 20-10, the surface being now a fairly even slope, roughly corresponding to slope of original surface, but 28 inches below it. In the portion D-H x 12-10 bed-rock was now reached. In this portion (serial No. 58) slabs of sandstone, lying nearly horizontally, were found to within three inches of bed-rock. Below these slabs came a layer of brown earth and small pebbles (see sample) lying undisturbed on the bed-rock. In the portion D-H x 20-12 (serial No. 59) quartz flakes were abundant, while in No. 58 they were scarce. This is because 58, though the same depth below the surface was nearer to bed-rock than 59. It is clear that this cave was uninhabited when the first layer of soil was deposited on the bed-rock of the cave. This layer is of zero depth at meridian 3 feet, is on average about 3" deep at 6', and 4" at 12'. The level of greatest abundance of flakes in area 59 appeared to be at from 55 to 65 cm. below the original surface and from 60 to 25 cm. above bed-rock.

Serial No. 60. Excavated area D $\frac{1}{2}$ -G $\frac{1}{2}$ x 20-12 from previous level to bed-rock. The depth of the previous level (*i.e.*, surface as left after excavation No. 59) below datum was noted, and was found to be as follows:—

at 12	along D $\frac{1}{2}$	Cm.	153	b.d.	along G $\frac{1}{2}$	Cm.	142	b.d.
.. 13	"	"	153	"	"	"	142	"
.. 14	"	"	150	"	"	"	136	"
.. 15	"	"	154	"	"	"	127	"
.. 16	"	"	140	"	"	"	126	"
.. 17	"	"	140	"	"	"	126	"
.. 18	"	"	130	"	"	"	121	"
.. 19	"	"	126	"	"	"	112	"

i.e., from 60 to 75 cm. below the original surface, and from 7 to 50 cm. above bed-rock. Owing to the considerable depth beneath the original surface (nowhere less than 60 cm.), it is not surprising that not a fragment of pottery

or even of bone or charcoal has been found. On the other hand, owing to the considerable depth of soil still to be excavated (in places as much as 50 cm.), it is not surprising that the sterile layer was not immediately reached, and that the first few inches removed from the portion D $\frac{1}{2}$ -G $\frac{1}{2}$ × 20-15 yielded a fair number of flakes. In the course of this excavation a very large slab was removed, covering area 14 $\frac{1}{2}$ -19 × D $\frac{1}{2}$ -G. Underneath it was a layer of earth from one to six inches deep lying flat on bed-rock. This layer was absolutely sterile, so that the sterile layer, which reached up to 4" above bed-rock on 12", extended to 6" above bed-rock on 15. The slab in question, like other slabs mentioned in the interim report was apparently part of the original shelf which, having a smooth flat underside, slid into its present position on the floor of the cave at some remote period, and there fractured into more or less rectangular pieces, imprisoning beneath it the soil then existing on the cave floor at a depth of from 0 to 6", which since then would appear to have remained undisturbed (except by roots and white ants) until to-day. The complete absence of human artefacts suggests that the shelf fell before human habitation had commenced.

March 7th, 1935.—Removed soil from alongside and under the over-hanging rock-shelf in area H-1 × 20-10 (serial No. 61) at a depth of from 12 to 24" below original surface.

Serial No. 63. Continued removal of soil from same area to a depth of 36".

Serial No. 64. Removed block of stone lying at 13-10 × G $\frac{1}{2}$ -1 at a depth of 30" below the original surface to 2" above bed-rock on 10, and about 1' above bed-rock on 13. Underneath the stone block was a mass of tightly packed earth from 2 to 12" in depth lying on the bed-rock. It was not possible in sifting this earth to separate it from that which came away from the cliff wall when removing the stone block. It is this latter which probably accounts for the presence of the 6 flakes, 4 charcoal fragments, and one bone fragment.

The entire section of the cave West of the trench was by now cleared to bed-rock.

March 8th, 1935.—No work done in cave. Visited surface mesolithic site with Major Gordon.

March 9th, 1935.—Commenced excavation of section lying East of trench—the area that had not been touched at the time of the Diwali 1934 or the earlier Christmas 1932 excavation. Removed a layer of one inch from the

surface in area J-L × 32 to the East wall of the cave (serial No. 65) which in this latitude lay along meridian 36".

Serial No. 66. Removed a layer of one inch from the surface in area G-J × 32 to the East wall.

Serial No. 67. Removed a layer of one inch from the surface in area D-G × 32 to the East wall.

Serial No. 68. Removed a layer of one inch from the surface in area D-L × 29' 10"-32 (South wall of cave was reached at L).

Serial No. 69. Removed a layer of one inch from the surface in area J-South wall × 29'10"-23' (trench).

Serial No. 70. Removed a layer of one inch from the surface in area D-G × 29' 10"-24.

Serial No. 71. Removed a layer of one inch from the surface in area B-D × 32 to 24.

Serial No. 72. Removed a layer of one inch from the surface in area B-D × 32 to East wall.

Serial No. 73. Removed a layer of one inch from the surface in area B-G × 24 to Trench.

Serial No. 74. Removed a layer of one inch from the surface in area A-B × trench to East wall.

Throughout this day's excavation charcoal, bones and pottery were abundant along with the usual surface rubbish. The complete absence of quartz implements, and still more the almost complete absence of flakes (11 flakes and 1 core in all were found in the whole area East of the trench, *i.e.*, half of the entire cave in this first inch excavated) suggests strongly that the mesolithic culture had disappeared before this surface soil accumulated. The very few flakes that were found are readily accounted for by disturbance of the soil. Indeed, in view of the abundance of roots and white-ant houses honeycombing the soil, one would have expected to find more than eleven flakes brought up to the surface by disturbance.

March 10th, 1935 (Sunday).—No work done. I visited another cave with Major Gordon.

March 11th, 1935.—Commenced removal of second layer of one inch in the section East of the trench.

Serial No. 75. Removed a layer of one inch from previous level in area J-L × 32 to East wall.

Serial No. 76. Removed a layer of one inch from previous level in area G-L × 32 to East wall.

Serial No. 77. Removed a layer of one inch from previous level in area D-G × 32 to East wall.

Serial No. 78. Removed a layer of one inch from previous level in area D-L, (South wall) × 32-29' 10".

Serial No. 79. Removed a layer of one inch from previous level in area J-South wall × 29' 10"-23 (trench) site of a hearth.

March 12th, 1935.— Ill. No work in cave.

March 13th, 1935.—In view of the uniformity of the finds discovered in the excavations of March 9th and 11th, commenced removing 2 inches at a time from surface as left by those excavations.

Serial No. 80. Removed a layer of two inches from previous level area G-J × 24 — 32. The soil in this area had been disturbed. A Hearth?

Serial No. 81. Removed a layer of two inches from previous level in area D-G × 24-32.

Serial No. 82. Removed a layer of two inches from previous level in area A-D × 23-32. Charcoal very abundant.

Serial No. 83. Removed a layer of two inches from previous level in area A-D × 32-35 (East wall).

Serial No. 84. Removed a layer of two inches from previous level in area D-G × 33-35 (East wall).

Serial No. 85. Removed a layer of two inches from previous level in area G-L × 33-35 (East wall).

Serial No. 86. Removed a layer of two inches from previous level in area J-L × 24-32.

In the layer excavated this day charcoal, ash, calcinated bone fragments and fragments of crab shell were found in close association. They were clearly the remains of a meal, and according to my coolies, of a typically Kurku meal. The paucity of flakes (13 in all) suggests that we are still above the mesolithic stratum.

March 14th, 1935.—Continued excavation of the same section (East of trench) to the depth of 2" below the surface exposed by the previous excavations.

Serial No. 87. G-J × 24-33 Removed a layer of 2 inches.

Serial No. 88. D-G × 24-33 Removed a layer of two inches. The earth here was grey-brown (see sample).

Serial No. 89. A-D × 24-33. Removed a layer of two inches.

Serial No. 90. A-D × 33-35. Removed a layer of two inches.

Serial No. 91. D-G \times 33-35. Removed a layer of two inches.

Serial No. 92. G-L \times 33-35. Removed a layer of two inches.

Serial No. 93. J-L (South wall) \times 24-33. Removed a layer of two inches.

March 15th, 1935.—Ill. No work in cave.

March 16th, 1935.—Ill. Excavation carried on by coolies under superintendence of my head cooli, Babulal. Continued excavation of same section to the depth of two inches below the surface exposed by previous excavation.

Serial No. 94. J-L (South wall) \times 24-32. Removed a layer of two inches.

Serial No. 95. G-J \times 24-32. Removed a layer of two inches.

Serial No. 96. D-G \times 24-32. Removed a layer of two inches.

Serial No. 97. A-D \times 24-32. Removed a layer of two inches. The relative abundance of flakes in this area (20) suggests that here the true mesolithic level has now been reached. But it must be noted that along A \times 24-27 the cave deposits are already steeply sloping to their outer edge, and that probably several inches of the original surface in this area has been removed by erosion and disturbance, so that the true depth of this layer beneath the original surface is greater than would appear from its depth beneath the surface existing at the commencement of my excavations.

Serial No. 98. A-D \times 32-35. Removed a layer of two inches. The note in the previous para refers also to the find of flakes in this area, but to a lesser degree, the slope towards the outer edge being less pronounced.

Serial No. 99. D-I, (South wall) \times 32-35. Removed a layer of three inches.

March 17th, 1935.—In view of the uniformity of the finds discovered when excavating in layers of two inches (and even three inches in case of No. 99), commenced removing three inches at a time. As I was still ill excavation was carried on by coolies under Mrs. Hunter on this and succeeding days.

Serial No. 100. D-J \times 24-32. Removed a layer of two or three inches.

Serial No. 102. A-D \times 24-32. Removed a layer of three inches.

Serial No. 103. D-L (South wall) \times 32-35. Removed a layer of two or three inches.

March 18th, 1935.—Continued excavation of same section to a depth of three inches below the level exposed on 17th.

Serial No. 104. A-D \times 24-32. Removed a layer of three inches.

- Serial No. 105. A-D × 32-35. Removed a layer of three inches.
Serial No. 106. D-G × 24-32. Removed a layer of three inches.
Serial No. 107. G-J × 24-32. Removed a layer of three inches.
Serial No. 108. D-L × 32-35. Removed a layer of three inches.

March 19th, 1935.—Continued excavation of same section to a depth of four inches below the level exposed on 10th inst.

- Serial No. 109. A-D × 24-32. Removed a layer of four inches.
Serial No. 110. D-G × 24-32. Removed a layer of four inches.
Serial No. 111. G-J × 24-32. Removed a layer of four inches.

March 20th, 1935.—No work done in cave.

March 21st, 1935.—Continued excavation of same areas as on 19th instant to a further depth of four inches.

- Serial No. 112. A-D × 24-32. Removed a layer of four inches.
Serial No. 113. D-G × 24-32. Rrmoved a layer of four inches.
Serial No. 114. G-J × 24-32. Removed a layer of four inches.

March 22nd, 1935.—Continued excavation of the area excavated on 21st instant to further depth of four inches, and of the area D-L × 32-35 to a depth of four inches below level exposed on 18th instant.

- Serial No. 115. A-D × 24-32. Removed a layer of four inches.
Serial No. 116. D-G × 24-32. Removed a layer of four inches.
Serial No. 117. G-J × 24-32. Removed a layer of four inches.
Serial No. 118. D-L × 32-35. Removed a layer of four inches.

We have now reached the true mesolithic layer in Nos. 116, 117 and 118, as is clear from the abundance of flakes, and paucity of other objects. Pottery was represented only by the two fragments in 118. In the case of 115, the true mesolithic was probably reached at the end of the day's excavation, but not at the beginning, as is clear from the presence of the eleven beads, which almost certainly form part of a necklace along with those excavated the previous day in the same locality (see Nos. 112, 113 in Catalogue).

March 23rd, 1935.—Before continuing excavation the depth of soil removed hitherto was checked by measuring the depth of the now-exposed surface below datum at the points 32 × D and 24 × D. This was found to be twenty-four inches and twenty-five inches respectively, whereas on the original surface the points lay respectively six and fifteen inches below datum. It was thus clear that at D × 32 some eighteen inches in all had been removed, but at D × 24 only eleven inches; whereas according to record some twenty-six inches had been uniformly removed. The recorded figures must be reduced

in proportion accordingly. By this time practically nothing was left South of line J, in which area bed-rock had been reached at depths of from zero to fourteen inches below the original surface, as now revealed by accurate measurement from bed-rock to datum. Similarly the area H. J. East of 32 was now bare to bed-rock. For neither the South nor the East walls were found to be perpendicular, but, on the contrary, shelving.

Serial No. 119. A-D \times 24-32. Removed a layer of six inches from level reached on 22nd instant.

Serial No. 120. D-G \times 24-32. Removed a layer of six inches, consisting mostly of rock that had to be dislodged. Consequently no finds beyond a few fragments of charcoal in rocky interstices.

Serial No. 121. G-J \times 24-33 (East wall). Removed a layer of six inches. Mostly rock that had to be broken up and dislodged.

Serial No. 122. J-L \times 32-35. Removed last handfuls of soil from this area to bed-rock in an 18" deep fissure in the floor.

March 24th, 1935.—Continued excavation in that part of the section (East of trench) where soil still remained to be excavated, removing a layer of six inches at a time.

Serial No. 123. A-D \times 32-35. Removed a layer of six inches.

Serial No. 124. D-G \times 32-35. Removed a layer of six inches.

Serial No. 125. A-D \times 24-32. Removed a layer of six inches.

Serial No. 126. G-J \times 24-32. Removed a layer of six inches.

Nothing was found in this area, or in area D-G \times 24-32, which was similarly excavated to six inches. The soil sample from No. 126 was taken at 33 $\frac{1}{2}$ " below datum.

March 25th, 1935.—Continued excavation to a depth of six inches below the level reached on 24th instant.

Serial No. 127. A-D \times 243-5. Removed a layer of six inches.

Serial No. 128. D-H \times 32-35. Removed a layer of six inches.

Serial No. 129. G-J \times 24-35. Removed a layer of six inches.

Area D-G \times 24-32 was occupied by rock and yielded nothing.

March 26th, 1935—Continued excavation to a depth of six inches below the level reached on 25th instant.

Serial No. 130. A-D \times 24-32. Removed a layer of six inches.

Serial No. 131. D-H \times 32-35. Removed a layer of six inches.

Serial No. 132. The packet in which the contents of this number were brought up from the cave contained two dockets, one giving the area as

"A-D \times 24-32 excavated on 23-3-35," the other "G-J \times 24-32 excavated on 26-3-35". One of the dockets got enclosed in error. I think the second is the correct one. Area A-D \times 32-35 was occupied by rock, and yielded nothing; Do. Area D-G \times 24-32; while the whole of G-J \times 32-35 was now cleared to bed-rock. So also was most of the area D-G \times 32-35. Consequently, the area of excavation being thus shrunk, it was decided to amalgamate the areas in later excavations.

March 27th, 1935.—Serial No. 133. Removed a layer of six inches from previous level in what remained of area A-J \times 24-35.

March 28th, 1935.—Serial No. 134. Removed a layer of six inches from previous level in same area A-J \times 24-35.

March 29th, 1935.—Serial No. 135. Removed a layer of six inches from previous level in previous area.

March 30th, 1935.—Serial No. 136. Removed a layer of six inches from previous level in previous area.

March 31st, 1935.—Serial No. 137. Removed a layer of six inches from previous level in previous area.

April 1st, 1935. Serial No. 138. Removed a layer of six inches from previous level in previous area.

April 2nd, 1935. No work done in cave.

April 3rd, 1935. Excavated outer Northern slope of cave floor, O-A \times 25-21 (trench), to a depth of 18 inches from the surface (Serial No. 139). Removed rocks lying close above bed-rock in area D-G \times 24-27. Probably part of the fallen shelf referred to above (March 6th, serial Nos. 58-60). Underneath was found a layer of earth resting on bed-rock (which was found at five feet below datum) (serial No. 140). And nothing else was found in this layer except fragments of decayed root and three flakes which probably belong to the level above the rocks, and fell in from the interstices between the rocks at the time of removing the latter. In other words, the bed-rock layer in this area East of the Trench was sterile, as in the section West of the Trench.

April 4th, 1935.—No work done in cave.

April 5th, 6th, 1935.—Removed rocks lying above bed-rock in remaining areas East of the trench (*i.e.*, other than area D-G \times 24-27). Found 26 flakes and one core (?) in layer of soil resting on bed-rock, all of which had probably found their way into the interstices between the rocks in the course of centuries, and from the interstices to the bed-rock soil below the rocks at the moment of our removal of the latter. As the rocks had to be broken up with the sledge-hammer and removed with the aid of iron-bars, it will

be easily understood that disturbance of the bed-rock layer was in places inevitable, with consequential impossibility of distinguishing what had fallen in during the disturbance from what was probably *in situ* (serial No. 141).

APPENDIX XI.

Catalogue.

S. No.*	Quartz implements	Flakes Quartz	Other objects
48	....	6	....
49	....	8	
50	3 { 1 Alénette 1 Crescent (broken) 1 Crescent-Trapeze	36	....
51	2 Alénettes	22 and one core	One small charcoal and one shell fragment.
52	1 Curved alénette	12	Miscellaneous,† abundant charcoal.
53	....	7	1 charcoal fragment, sample of soil.
54	....	4	Miscellaneous, and 1 large bone fragment.
55	....	6	Miscellaneous, charcoal abundant.
56	....	44	Mainly charcoal.
57	1 Alénette	19 and one core	A few small bone fragments.
58	....	12	Some charcoal, two small bone fragments, sample of soil.
59	4 { 3 Alénettes 1 Crescent	156	One or two small fragments of bone and charcoal.
60	1 Curved alénette	58	Sample of decayed root.
61	....	15	Miscellaneous, several bone frag- ments.
62	1 Alénette	26	Miscellaneous, charcoal and some small bone fragments.

* The Serial Number is taken from the Field Notes. It will also be found marked on the container or wrapper of the finds concerned. The series starts with No. 48 in continuation of my interim report. The finds are in the Nagpur Museum.

† The term 'Miscellaneous' signifies fragment of pottery, bone shell, charcoal. As these were invariably found together at the upper levels, and in disturbed areas (such as the vicinity of the rock shelf) in roughly the same proportions as in the earlier excavation (see Appendix VI Interim Report) it seemed a waste of time to sort out and catalogue separately the bone splinters, charcoal cinders, pottery fragments, etc. The pottery has, except for very small fragments left as samples, been removed and collected separately into one box in order to facilitate study by experts.

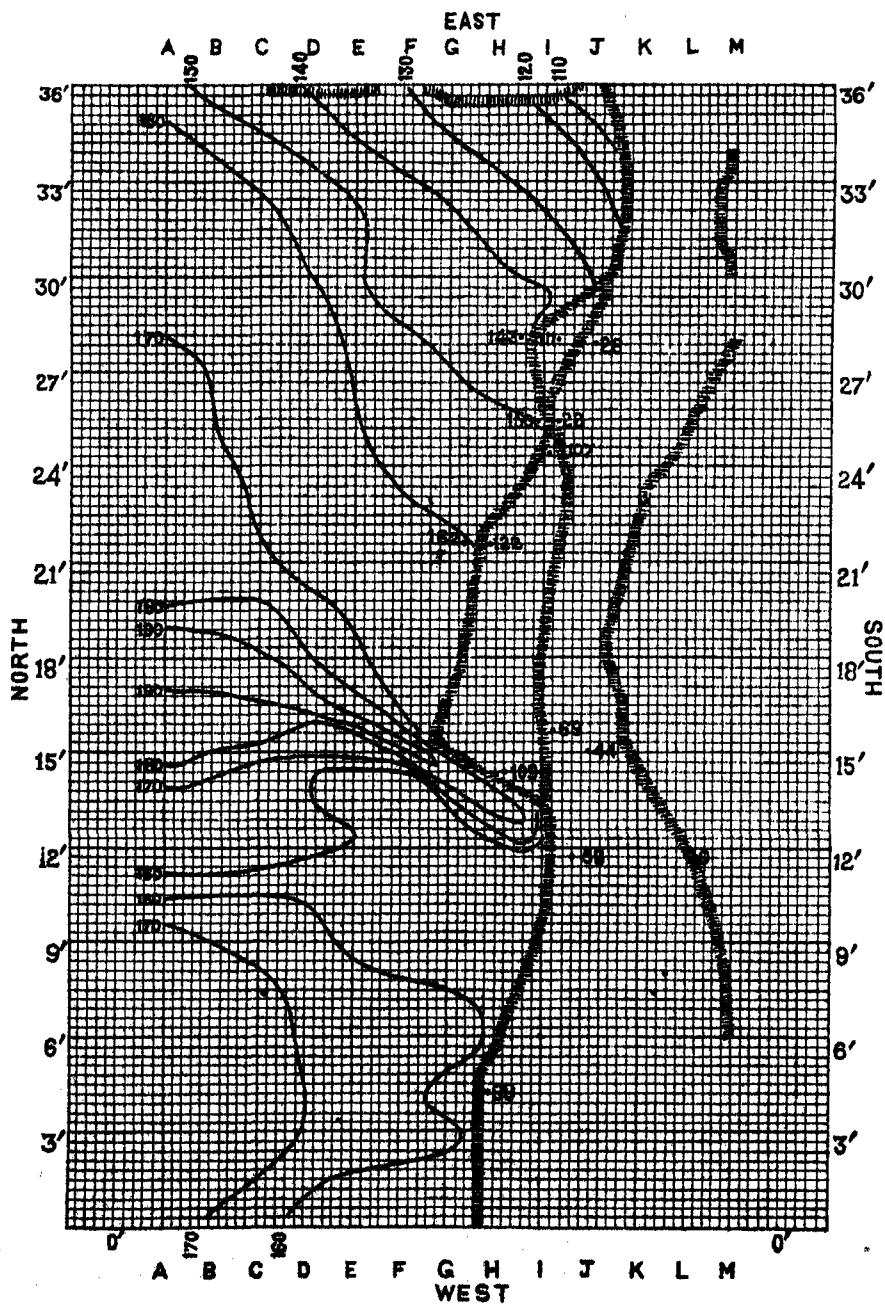
S. No.	Quartz implements	Flakes Quartz	Other objects
63	7	One small piece of petrified bone, 2 small pieces of charcoal.
64	6	One small piece of petrified bone, 4 very small pieces of charcoal.
65	Miscellaneous.
66	1	Miscellaneous, abundant charcoal.
67	2	Miscellaneous, abundant charcoal.
68	Miscellaneous, abundant charcoal.
69	3	Miscellaneous, abundant charcoal. One large bone fragment. One bead.
70	Miscellaneous, 4 beads. One large bone fragment.
71	1 core	Some bone and charcoal.
72	1	Miscellaneous, mostly charcoal.
73	2	Miscellaneous, abundant charcoal.
74	2	Miscellaneous, mostly charcoal.
75	Miscellaneous, abundant charcoal.
76	Abundant charcoal, some bone fragments. Miscellaneous.
77	Miscellaneous, abundant charcoal.
78	Mostly bone and charcoal.
79	Abundant ash and charcoal, and miscellaneous.
80	4	Miscellaneous, abundant ash.
81	2	Miscellaneous, abundant bone, ash and charcoal.
82	Charcoal very abundant.
83	6	Charcoal abundant. Small bone fragments.
84	Charcoal abundant, miscellaneous. Several bone fragments of medium size.
85	Miscellaneous, abundant charcoal, ash and bone.
86	1	Miscellaneous, abundant charcoal and bone.
87	Charcoal abundant, miscellaneous.

S. No.	Quartz implements	Flakes Quartz	Other objects
88	4	Charcoal abundant. One bead fragment. Miscellaneous, mainly bone fragments.
89	7	Charcoal abundant, petrified bone.
90	A few miscellaneous fragments.
91	Bone (some petrified) and charcoal.
92	Miscellaneous. Charcoal abundant.
93	Miscellaneous. Two large sandstone fragments.
94	Miscellaneous.
95	1	Sandstone fragment: Possibly artefact. Miscellaneous. Charcoal abundant. One medium size bead.
96	Miscellaneous, charcoal abundant.
97	20	Miscellaneous, shell and bone, 2 large lumps of charcoal.
98	9	Miscellaneous. One large lump of charcoal.
99	Charcoal, bone and shell.
100	12	Charcoal moderate, bone abundant, 1 sandstone artefact (?). Miscellaneous.
101	12	Large fragments of bone and charcoal.
102	10	Miscellaneous, several bone fragments.
103	12	Miscellaneous, abundant. One bead.
104	16	Miscellaneous (Bone, Charcoal). Soil sample.
105	Miscellaneous, chiefly bone fragments, soil sample.
106	Miscellaneous, soil sample.
107	One bead. Bone fragments. Soil sample.
108	1 Alénette	16	Chiefly bone fragments. Soil sample.
109	19	Large bone fragment and miscellaneous.
110	1	Miscellaneous.

S. No.	Quartz implements	Quartz Flakes	Other objects
111 2	{ 1 Alénette 1 Scraper	7	Shell. Bone fragments.
112	....	24	4 beads, miscellaneous. Large piece of charcoal.
113	1 Failure	17	A few bone fragments, 2 beads.
114	....	6	Mostly bone fragments.
115	1 Alénette	29 (all small)	11 Beads, bone, miscellaneous.
116 4	{ 1 Curved alénette 1 Crescent 2 Scalene	73	A few miscellaneous fragments.
117	....	22	Charcoal.
118	2 Alénettes (one broken)	41	2 small pottery fragments.
119 2	{ 1 Alénette 1 failure (?)	80	1 Bead. Miscellaneous, seeds (?) found in house of white-ants.
120	....	..	A few charcoal fragments. Soil sample.
121	....	6	Charcoal fragments.
122	....	1	2 charcoal and 1 bone fragment.
123 2	{ 1 Curved alénette 1 Alénette (broken)	29	Miscellaneous, one bead.
124 3	{ 2 Alénettes 1 Isosceles (minute)	16	1 bone fragment.
125 1	Isosceles (minute)	99	Miscellaneous, abundant bones.
126	....	..	Soil sample (Sterile).
127	....	58	A few miscellaneous fragments.
128 2	{ 1 Trapeze 1 Scalene (retouched on both the long sides).	52	A few miscellaneous fragments. Soil sample.
129	....	10	Mostly charcoal.
130 5	{ 1 Large alénette (broken) 1 Alénette (broken) (?) 2 Scalenes 1 Scraper (?)	92	A few bone and miscellaneous fragments, medium to small.
131 1	Alénette	36	A few very small pottery and bone fragments.
132 2	{ 1 Alénette 1 Failure	11	One small bone fragment.

S. No.	Quartz implements	Quartz Flakes	Other objects
133 7	{ 1 Scraper (large) | 1 Alénette (small) | 1 Crescent (small) { 1 Crescent-scalene (medium) | 1 Scalene (medium) | 1 Scalene-isosceles (medium) { 1 Isosceles (medium)	145	Bone fragments, charcoal frag- ment. Petrified bone fragment. Miscellaneous. Earth sample.
134 3	{ 1 Scraper (medium) | 2 Alénettes (?)	189	A few miscellaneous fragments. Two small bone fragments, one charcoal fragment.
135 10	{ 1 Scraper (medium) | 3 Alénettes (small) | 2 Curved-scalene { Alénettes (medium) | 1 Scalene (small) | 1 Isosceles (small) { 2 Crescents (minute)	327	Few miscellaneous fragments (shell, bone, charcoal, pottery). Horse's (?) teeth.
136 1	Curved alénette (large)	96	Miscellaneous, fairly abundant bone and charcoal ; teeth.
137	....	49	A few bone fragments.
138 2	{ 1 Alénette (broken) | 1 Crescent prepared for re- touching, but not retouched	57	A few bone fragments.
139	....	7	Miscellaneous; mostly bone frag- ments. Teeth.
140	....	3	Soil sample.
141	....	26 and 1 core	....
142	Sample of surface soil from " nullah " section of Christmas 1932 excavation.		
143	Miscellaneous finds among surface soil fallen into trench since excavation of Diwali 1934.		
144	Sample of sieved surface soil, taken from surface to one inch below it, in section East of Trench.		

APPENDIX XII.



Floor contours in cm. below datum level.

APPENDIX XIII.

*University of London,
University College,
Gower Street, London, W.C. 1.
Galton Laboratory.*

*Report of Human Skeletal Remains excavated in a Rock-shelter near
Pachmarhi, Central Provinces.*

The fragments apparently belonged to a single individual who was certainly immature (as the proximal end of a humerus shows the head not united to the shaft), and probably between 13 and 17 years of age. No one of the long bones is complete, but sufficient of the right femur is preserved to give, as a rough estimate, a stature of 150 cm. (4' 11"). No fragments which could be assigned to the skull with certainty were found, and the vertebrae and pelvis are also unrepresented, as far as could be seen from a somewhat superficial examination. Careful restoration of the fragments would be unlikely to lead to any further information of interest or to furnish a single complete bone. Nothing can be said about the racial affinities of the individual.

(Sd.) G. M. MORANT,
23rd July 1936.

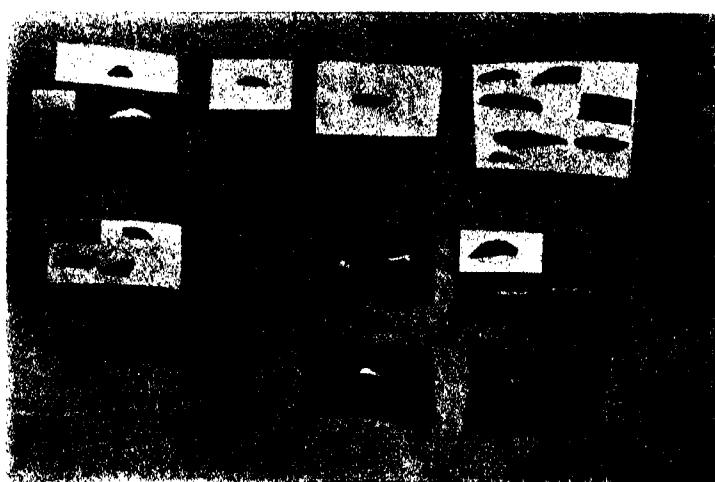


FIG. 2.

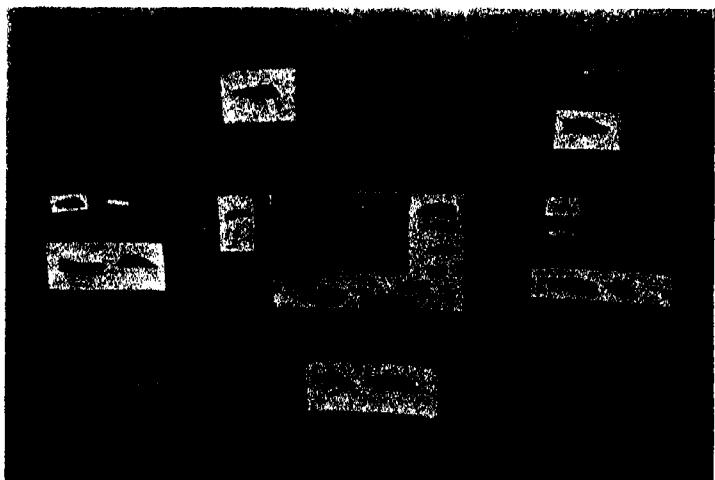


FIG. 3.

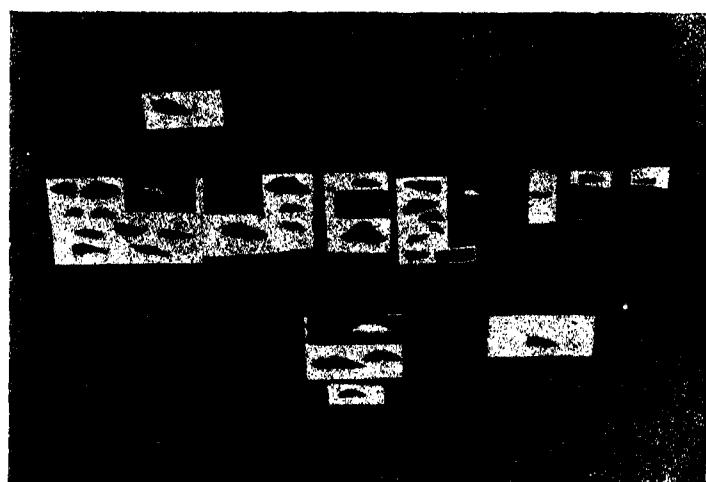


FIG. 4.

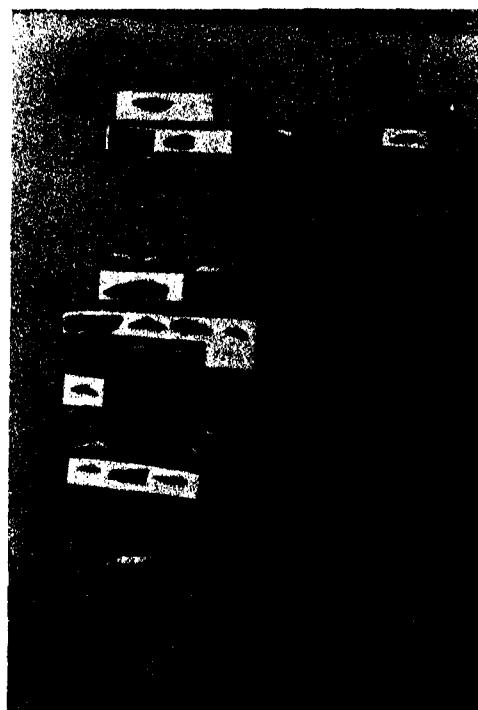


FIG. 5.

Dr. G. R. Hunter.

Nagpur University Journal, No. 2, Pl. III.

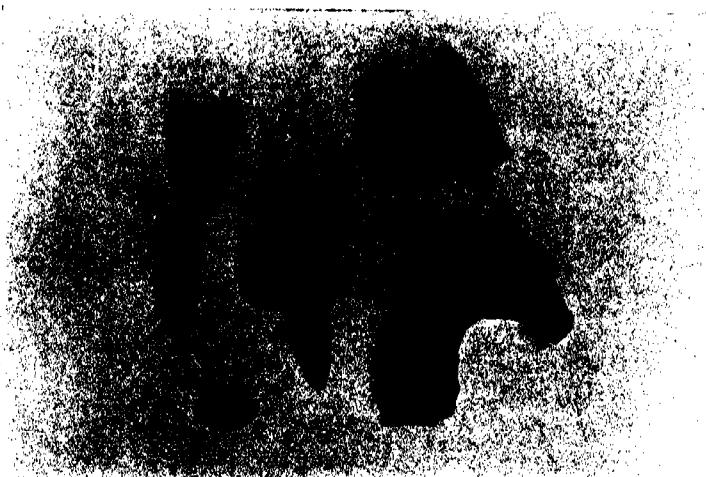


FIG. 6.

BYRONIC SATIRE.

By BOMAN H. MEHTA, B.A. (CANTAB.),
King Edward College, Amraoti.

HUMBERT WOLFE's remark that "Byron writes better poetry but worse satire than Pope" echoes the traditional distinction between poetry and satire. This distinction springs from the romantic preconceptions regarding poetry and a digression from the subject-matter of this paper is necessary in order to clarify the fundamental issue at stake inherent in Wolfe's remark.

It would be paradoxical to call Byron both a romantic and a satirist for the romantic mood cannot admit of the satiric vein, which would be definitely unhealthy for its development, according to romantic standards. The romantic preconceptions were limited as regards the themes, the material and even the modes in poetry. To attempt to define them is to run the risk of misrepresenting them for, as Dr. Leavis says, "it is largely in their being vague and undefined that their power has lain". As early as 1756, Joseph Warton, in the "Dedication" of the "Essay of the Genius and Writings of Pope", outlines the assumptions which were to govern the romantic taste. He writes: "The sublime and the pathetic are the two chief nerves of all genuine poetry. What is there transcendently sublime or pathetic in Pope". Then in the early nineteenth century we find Lockhart writing in the *Edinburgh Review*: "It is the cant of our day that Johnson was no poet. To be sure they say the same of Pope and hint occasionally even of Dryden". With Arnold and his age these assumptions are firmly entrenched and naively Arnold questions "whether Dryden and Pope are poetical classics" and dismisses them as "classics of prose". In his essay on Gray he is more emphatic: "The difference between genuine poetry and the poetry of Dryden, Pope and all their school is briefly this: their poetry is composed and conceived in their wits; genuine poetry is composed and conceived in the soul". Herein lies the typical prejudice of the nineteenth century denying poetry any status if it was outside the Miltonic dictum of being "simple, sensuous and passionate". The correct poetical response for the Victorian was to be "moved" by the tender, the exalted or the poignant. Hence a response resulting from the satiric emotion would be outside the pale of "pure poetry". With such prepossessions it is difficult to enjoy Byron and much less Pope. To do so we must pass

beyond the limitations of the nineteenth century as Mr. Eliot rightly advises us to do.

If poetry is the storehouse of traditional values, if we think it to be the great and creative force coalescing a variety of elements into a whole in short forging "multiety in unity", which Coleridge insisted upon, then satire is a complement to this type of poetry. The motif which encourages the satirist to write is to express antipathy with the desire to defame the object satirised—the notion that a satirist should necessarily be a moralist has been convincingly exploded by Mr. Wyndham Lewis in "Men Without Art". Such emotions found no room in the romantic conception—the "negative" emotions, as Mr. Edgel Rickword calls them, due to "social queasiness"; and he says: "The poetry of the negative emotions, of those arising from the disgust of the object, provides the means for a whole series of responses in parts of the mind which have been lying fallow for nearly two hundred years." As Mr. Eliot suggests: "Those who object to the artificiality of Milton or Dryden sometimes tell us to 'look into our hearts and write'. But that is not enough; Racine and Donne looked into a good deal more than the heart. One must look into the cerebral cortex, the nervous system, and the digestive tracts." It is the absence of such elements that has banished poetry from the general reading public and circumscribed its influence to the arm-chair philistines. But if we are to take poetry seriously, if we desire it to affect our attitude towards external environment, then we have to set aside the limitations of taste set up by Arnold. It must be admitted that poetry makes use of a variety of impulses—"negative" and otherwise. To quote Dr. Richards: "Irony in this sense consists in the bringing in of the opposite impulses, the complementary impulses; that is why irony itself is so constantly a characteristic of poetry which is." There must exist the critical shifts and interplay of a variety of responses without affecting our total response to the poem. With Dryden, Pope and even Byron it was possible to do so; a metaphysical could always be both passionate and ironic, but a nineteenth century poet in order to be serious could only be solemn and pompous unlike Shakespeare, who at his best and tragic moments, could easily introduce the ludicrous without blurring the total effect, in fact, thereby, heightening it, e.g., in "Lear". We, then, start with the premise that satire of the highest order can also be poetry of the highest order. We are not concerned with the material of the satirist but how he converts it into poetry, as Mr. Eliot pointed out in the case of Dryden.

In the light of such an approach Humbert Wolfe's remark stated above is an irrelevant detraction. And we shall approach Byron as an eminent satirist and therefore an eminent poet.

"English Bards and Scotch Reviewers" was Byron's first attempt in satiric verse. It is an attempt to amalgamate the view-points of Churchill's "Apology" and Gifford's "Baviad". Like the former it is meant to chastise the hostile critics—"usurpers on the throne of taste"—and like the latter to pour ridicule on contemporary poets, for "Our bards and critics are so much alike". The young poet protests against the "swarm of idiots" infesting literature, laments at the decadent state of contemporary poetry, and finally arrogates to himself the right of defending morals. "Zeal for her honour bade me here engage." But apart from such pretensions the poem has nothing to offer; it suffers from an absence of coherence and logic and is weakest where it could have been most effective, e.g., in the passage directed against Jeffreys. Unlike Pope in the 'Dunciad', Byron fails to realise the situation in which his victims would appear ludicrous, whereas Pope while annihilating the nonentities of his day, is like Gulliver among the Lilliputians, Byron may be compared to Gulliver in the country of the Brobdingnags, Pope's complexity results from a fusion of satiric tones beyond Byron's scope. Pope could be elegant, serious and even insolent without being inane. He could also be profound as Byron never is. As Goethe puts it : "The moment he reflects he is a child."

On the other hand, Byron is passionate in a sense in which Pope never is. Like Donne and Marlowe, Byron shocks and startles and also enchanting his age by the challenge which his poetry offers to the accepted moral conventions, disturbing the scale of values. Pope presents in his poetry the stability and the values on which the civilization of his age rests and this stability is evidenced in the 'good form' of his craftsmanship. During the Regency the state of affairs is different and Byron depicts the dissoluteness, the moral decay, the absence of standards and disruption in the body politic. Such phenomena Byron finds incompatible. And again and again Byron's stormy nature revolts at them and prophesies change :—

"But never mind ;—'God save the king !' and kings !
For if *he* don't, I doubt if *men* will longer—
I think I hear a little bird, who sings
The people by and by will be stronger
The veriest jade will wince whose harness wrings
So much into the raw as quite to wrong her
Beyond the rules of posting,—and the mob
At last fall sick of imitating Job."

—("Don Juan", VIII, 50.)

This remark is Chaucerian in its simplicity and it does not contain merely the idealist's hope of a new order—it must be remembered that Byron was a practical politician whose speeches in the House of Lords were seldom welcome and

who had taken an active part in the affairs of Greece. For the next stanza shows his personal knowledge of mass movements and mob psychology :—

“ At first it grumbles, then it swears, and then
 Like David, flings smooth pebbles 'gainst a giant ;
 At last it takes to weapons such as men
 Snatch when despair makes human heart less pliant.
 Then comes the 'tug of war' :—'t will come again,
 I rather doubt it ; and I would fain say 'Fic on 't,'
 If I had not perceived that revolution
 Alone can save the earth from earth's pollution.”

In the “Age of Bronze,” he analyses the causes of ‘earth’s pollution’. The robber barons, the slum landlords at the expense of the populace desire to maintain and increase their power; devise methods to camouflage their ignoble aims; foster patriotic feelings for their mercenary gains, in short, they want to control finance and to cloak their malicious designs, detract the attention of the mob from the real issues by waging wars :—

“ Year after year they voted cent per cent.
 Blood, sweat, and tear—wrung millions—why for rent !
 They roared, they dined, they drank, they swore, they meant
 To die for England—why then live ?—for rent !
 The peace has made one general malcontent
 Of these high-market patriots ; war was rent !
 Their love of country, millions all mispent,
 How reconcile ? by reconciling rent !
 And will they not repay the treasures lent ?
 No : down with everything, and up with rent !
 Their good, ill, health, wealth, joy, or discontent,
 Being, end, aim, religion,—rent, rent, rent !”

—(“The Age of Bronze”, 1.)

Such an exposure of the economic exploitation in England is devastating and Byron gets his best effect through documenting the facts with the malicious motives of the war-mongers. His scorn and hatred get their cumulative driving force through the emphasis on one fact—profiteering. And the hammer-like blows reveal the issues in their naked hideousness. They upset the Malthusian dictum about war and provide the Marxist with a weapon to wage his struggle unceasingly. The central statement—“to die for England—why then live—for rent” would come as a shock to the average tommy in the army but it clinches the argument for those who allege how armament racketeers in the last World War sent their youths to the front only to be blown up by the arms manufactured in their own country and sold to the enemy. Byron’s poetry abounds in such denunciations and when he is not outrageously violent, he can be calmly and calculatingly destructive. Here is another passage in a different key altogether :—

" Cockneys of London ! Muscadins of Paris !
 Just ponder what a pious pastime war is.
 Think how the joys of reading a Gazette
 Are purchased by all agonies and crimes :
 Or if these do not move you, don't forget
 Such doom may be your own in after-times,
 Meantime the Taxes, Castlereagh, and Debt,
 Are hints as good as sermons, or as rhymes."

But Byron does not remain insular in his attacks on ' noble Albion ' merely but extends them to the political conditions of Europe. The Congress of Verona and the mystical Holy Alliance of the early nineteenth century, which according to the Rt.-Hon'ble Prof. Fisher : "muzzled the intellectual life in Germany, stamped out the constitutional movements of Italy, restored autocracy to Spain, refused to recognise the insurgent democracies of South America and came into collision with the more liberal philosophy of England," (*History of Europe*, p. 875), were for Byron a ' sight more mournful ' :—

" Strange sight this Congress ! destined to unite
 All that's incongruous, all that's opposite,
 I speak not of the sovereigns—they 're alike,
 A common coin as ever mint could strike :
 But those who sway the puppets, pull the strings,
 Have more of motley than their heavy kings.
 Jews, authors, generals, charlatans, combine
 While Europe wonders at the vast design."

And in the midst of this the Czar comes in for a bit of lashing and advice. He is the ' coxcomb ', ' the autocrat of waltz and war ', ' the imperial dandy prates of peace ' and Byron exhorts him :—

" Better reclaim thy deserts, turn thy swords
 To ploughshares, shave and wash thy Bashkhir hordes,
 Redeem thy realms from slavery and the knout
 Than follow headlong in the fatal route
 To infest the clime whose skies and laws are pure
 With thy foul legions."

As a champion of emancipation, the liberator of mankind, the defender of the oppressed and the protector of the helpless, Byron gave his all, his best, his wealth, his influence, his poetic genius, his practical aid. For him it was ' a grand object—the very poetry of politics '. So much for Byron as a political satirist, who joined the Carboneria Society in Italy to help her people to overthrow the foreign yoke and who died fighting for the emancipation of Greece. In this he is quite different from his great contemporary Shelley, who also indulged in revolutionary idealisms. But Shelley's outbursts against institutions and men are vapid and empty because far removed from reality. He remains the beautiful ' ineffectual angel ' ethereal

to the last degree; whereas Byron in his denunciations is so intimate in his grasp of the actual, so conscious of the contemporary evils, that his opinions have the weight of authority and personal knowledge behind them.

In "Beppo," "The Vision of Judgment" and "Don Juan" Byron wrote the epic of Europe rendering the very spirit of kings and politicians where 'men sit down to eat and drink and rise up to play'. And he successfully did so because he had discovered the proper medium for that blend of gravity and gaiety which the situations would demand. In these poems criticism in terms of 'technique' becomes irrelevant and Swinburne's remark is extremely helpful—"Byron can only be judged or appreciated in the mass". We have already dealt with that important but neglected poem "The Age of Bronze" which satisfies the demand of both the literateur and the historian. Apart from being a great poem, it remains a social document of the times.

"Don Juan" represents every side of Byron's variable individuality which must not be confused with what is popularly known as Byronism. The Byronic hero was a strong masculine, sensual lover who falls outside the scope of this paper. The range and substance of "Don Juan" is very great. "The soul of such writing lies in its license," wrote Byron to Murray. Though it is satirical in the main intent, it combines many other elements too. The pervasive satiric spirit has varied manifestations. There are examples of rancour and spite, of direct personal denunciations and furious invective. The attacks on Castlereagh and Southey, on Brougham and Lady Byron are in deadly earnest without a touch of mockery. At the same time he relies mainly on the more playful and the less violent method as utilised in 'Beppo':—

" Methinks the older one grows
Inclines us more to laugh than to scold."

In his criticism of the English society, he is at home with his subject, for he had been a member and close observer of :—

"that microcosm on stilts,
Yclept the Great World...."

—("Don Juan", XII, 56).

In it the flirtations between the sexes must not be regarded as 'adultery, but adulteration'. And the 'single ladies wishing to be double, the married ones to save the virgins trouble'. His picture, thus, of the upper class is humorous and ironic, but seldom vehement, e.g., when he describes the fashionable party at Norman Abbey, in Canto XIII, where thirty-three

guests 'of highest caste—the Brahmins of the Ton' assemble. They formed 'two mighty tribes the Bores and the Bored'. They were the :—

" Lordlings, with staves of white or keys of gold
Nimrods, whose canvas scarce contained the steed ;
And here and there some stern high patriot stood
Who could not get the place for which he sued."

And then he light-heartedly goes on to describe the methods of relieving the ennui in which they are deeply engulfed—gossiping, hunting, riding, drinking, whoring serve as means of relaxation for them and how some social parasites sneak into the circle and snatch a pleasure or two. Therefore Byron warns Juan that when he gets into the set :—

" Be hypocritical, be cautious, be
Not what you seem, but always what you see."

Apart from this theme there is a considerable amount of romance in the poem but it is invariably followed by a drop into bathos and absurdity, e.g., towards the close of the Third Canto where Mr. and Mrs. Milton, Shakespeare's deer stealing, Southey prating about Pantisocracy and Wordsworth 'with his drowsy frowsy poem called the Excursion' are followed up by 'Ave Maria':—

" Ave Maria ! blessed be the hour !
The time, the clime, the spot, where I so oft
Have felt that moment in its fullest power
Sink o'er the earth so beautiful and soft,
While swung the deep bell in the distant tower,
Or faint dying day-hymn stole aloft
And not a breath crept through the rosy air,
And yet the forest leaves seem'd stirr'd with prayer."

After writing a few stanzas like the above so exquisite in sentiment and so delicate in melody, he ends with a note which is at once harsh and grating. This juxtaposition of tenderness and mockery, tending by contrast to accentuate both moods, is highly characteristic of the spirit of the poem. Again in the Second Canto when Juan is lamenting over Donna Julia, his lapse into sentimentalism is interrupted by sea-sickness :—

" Sooner shall earth resolve itself to a sea
Than I resign thine image, oh my fair....
(Here the ship gave a lurch, and he grew sea-sick.)"

Or again, as in Canto II, the rhetorical address to London 'Freedom's chosen station' is concluded by :—

"He was interrupted by a knife
With—"Damn your eyes, 'your money or your life."

" If I have a fault it is digression ", says Byron. He employs it for two purposes, either to satirise peoples, institutions or theories or to gossip

about himself. For a detailed discussion on the matter, the reader is referred to Prof. Grierson's admirable study of Byron.

In the "Vision of Judgment", he adopts a different method. It is well known that it was written as a reply to Southey's poem. Byron's rejoinder is a crushing reply to the then Poet Laureate. "If Mr. Southey had not rushed in where he had no business," says Byron, "and where he was never before, and never will be again, the following poem would not have been written". The reason which provoked Byron was that Southey had eulogised the reign of the late George III, if not exactly idolised him. Byron's reply is in the form of a burlesque in which Lucifer conducts the prosecution of George III "a worse king never left a kingdom undone". In his estimate of the king, Byron is absolutely insulting. Here is an instance. He describes his funeral as follows :—

" He died ! his death made no great stir on earth :
 His burial made some pomp ; there was profusion
 Of velvet, gilding, brass, and no great dearth
 Of aught but tears—save those shed by collusion

 Who cared about the corpse ? The funeral
 Made the attraction, and the black the woe."

But such a contemptuous tone soon gives way to light-hearted railery. And Byron introduces a situation in which follows a tug-of-war between the Archangel and Satan. They decide, as it were, to take a referendum on the issue. This creates a comic situation in which the scum of hell are asked to give their opinion. Their onrush was tremendous and they looked like :—

"But such a cloud ! No land e'er saw such a crowd
 Of locusts numerous as the heavens saw these ;
 They shadow'd with their myriad space ; their loud
 And varied cries were like those of wild geese
 (If nations may be liken'd to a goose),
 And releas'd the phrase ' hell broke loose '."

The prosecution commenced and the first witness, John Wilkes, much to the annoyance of Satan, spoke in favour of George III. Further confusion was in store and appeared the Poet Laureate 'jostling and elbowing' and howling for a hearing :—He insisted on reading his "Vision", of which he had hardly read three lines, when there culminated a terrible confusion :—

"the whole spiritual show
 Had vanished, with variety of scents,
 Ambroisal and sulphurous, as they sprang,
 Like Lightning, off from his ' melodious twang '

.....
The angels stopp'd their ears and plied their pinions
The devils ran howling, deafen'd, down to hell :
The ghosts fled, gibbering, for their own dominions."

The upshot of all this was that ' King George slipped into heaven for one '.

The above discussion will show how different Byron's method of satirising is from, say, either that of Dryden or of Pope. Where Dryden makes his victims look ludicrous by associating them with heroes of epic grandeur, and Pope reduces them to the level of worthless vermins, Byron simply depicts them as they are and allows the reader to form his own conclusions, and moreover his canvas is more extensive than that of his two great predecessors. Dryden and Pope were engaged in insular politics, in Byron's perspective the map of Europe was included. And it is this fact which makes his poetry so important to a student of contemporary affairs.

BIOLOGICAL THEORIES OF POPULATION.

DR. H. C. SETH, M.A., PH.D. (LONDON).

THE Malthusian theory assumes that throughout all the changes of density of population and other circumstances, the human reproductive capacity, and therefore "the natural tendency of population to increase may be considered as a given quantity".¹ Number of writers have questioned this assumption of an unchanging birth-rate and have tried to show that, as in the case of the lower animals, similarly in the case of man, fecundity changes in altered circumstances, and thus physiological factors become mainly responsible for the different birth-rates and therefore different rates of the growth of population in changed circumstances.

Godwin arguing against Malthus had conjectured concerning the extinction of the passion between the sexes and a gradual wearing out of human fecundity with the progress of intellect. This line of argument has been taken up by many writers on population even after Malthus. Knowledge acquired by the biological sciences meanwhile has also thrown new light on these speculations.

Doubleday in 1841, suggested that nature always makes an attempt to preserve a species exposed to some eminent danger of destruction by an increase of fecundity. This specially takes place when there is a shortage of nourishment (or deplethic state) which encourages reproductive activity, while a plenty of food and nourishment (or plethic state) discourages it. This inverse ratio between fecundity and nutrition, according to Doubleday, is true not only in case of lower forms of life but also in case of human beings. From this he concludes that poor and underfed population multiplies very quickly, but well-fed population becomes less and less prolific.²

These views of Doubleday run counter to the commonly observed phenomenon that a higher nutrition makes possible a greater propagation. As Herbert Spencer observed in criticising Doubleday's views, "there is a distinc-

¹ Malthus, *Essay*, Appendix 1817 edition. Compare also his views expressed in the following passage. "Neither theory nor experience will justify us in believing either that the passion between the sexes or the natural prolificness of women diminishes in the progress of society." (*Essay*, Appendix 1817 edition).

² Thomas Doubleday's *The True Law of Population Shewn to be Connected with the Food of the People* (1841).

Also his *Financial, Monetary and Statistical History of England from 1768 to the Present Time*, etc. 1847. (In this book Malthus' *Essay* is more directly criticised).

tion between what may be called normal plethora, and an abnormal plethora, liable to be confounded with it. The one is a mark of constitutional wealth, but the other is a mark of constitutional poverty. Normal plethora is a superfluity of materials both for the building up of tissue and the evolution of force ; and this is the plethora which we have found to be associated with unusual fecundity. Abnormal plethora which, as truly alleged, is accompanied by infecundity, is a superfluity of force-evolving materials joined with either a positive or a relative deficiency of tissue-forming materials : the increased bulk indicating this state, being really the bulk of so much inert or dead matter. Obesity implies physiological impoverishment.³ Herbert Spencer's conclusion seems to be correct that "In the human race, as in all other races, such absolute or relative abundance of nutriment as leaves a large excess after defraying the cost of carrying on parental life, is accompanied by a high rate of genesis."⁴ This is just the reverse of Doubleday's doctrine ; which is that throughout both the animal and vegetal kingdoms overfeeding checks increase, whilst on the other hand, a limited or deficient nutriment stimulates it.⁵

Herbert Spencer himself through a different line of argument, advances the theory that further evolution of man will be accompanied by decreasing fecundity. He suggests that throughout nature there is an inverse variation between individuation and genesis. "The forces preservative of race are two—ability in each member of the race to preserve itself, and ability to produce other members—power to maintain individual life ; and power

³ H. Spencer, *Principles of Biology*, Vol. II, p. 459 (1880).

⁴ H. Spencer, *Ibid.*, Vol. II, p. 483.

⁵ Darwin also points to the phenomenon of "numerous recorded cases of the astonishingly rapid increase of various kinds of animals in a state of nature, when circumstances have been favourable to them during two or three following seasons. Still more striking is the evidence from our domestic animals of many kinds which have run wild in several parts of the world ; if the statement of the rate of increase of slow breeding cattle and horses in South America, and latterly in Austria, has not been well authenticated they would have been incredible."—*Origin of Species*, p. 80 (John Murray, London, 1906).

More recently Mr. Pell (*The Law of Births and Deaths*, 1921) has put forward a theory about the changes in the birth-rates not very different from that of Doubleday. Mr. Pell suggests that the birth-rate is subject to variations, and these variations are mainly due to a natural law which adjusts the degree of fertility to suit the death-rate of the race. The same conditions which lead to a reduction in the death-rate lead also to a decline in the birth-rate. He also tentatively suggests that the output of the hormones by the endocrine glands, which regulates the fertility of the germ cells, is itself regulated by the nervous system in response to the various environmental changes. The objections raised by Herbert Spencer against Doubleday's theory can also be urged against Mr. Pell's views.

to generate the species. These must vary inversely. When, from lowness of organisation, the ability to contend with external dangers is small, there must be great fertility to compensate for the consequent mortality ; otherwise the race must die out. When, on the contrary, high endowments give much capacity of self-preservation, a correspondingly—low degree of fertility is requisite.⁶

Herbert Spencer maintains that " Progress of organic evolution may be shown in increased bulk, in increased structure, in increased amount or variety of action or in combination of these ; and under any of its forms this carrying higher of each individuality, implies a correlative retardation in the establishment of new individualities."⁷ " In ascending from the lowest to the highest types, there is a decrease of fertility so great as to be absolutely inconceivable and even inexpressible by figures ; and whether the superiority of type consists in relative largeness in greater complexity, in higher activity, or in some or all of these combined, matter not to the ultimate inference. The broad fact is that organisms, in which the integration and differentiation of matter and motion have been carried furthest, are those in which the rate of multiplication has fallen lowest. We may therefore set it down as a law, that every higher degree of organic evolution, has for its concomitant a lower degree of that peculiar organic dissolution which is seen in the production of new organisms."⁸

Applying these general ideas to the problems of human growth Spencer argues, " His extremely low rate of multiplication—far below that of all terrestrial mammals—we shall recognise as the necessary concomitant of his much higher evolution."⁹ And " Any further evolution in the most highly evolved of terrestrial being, man, must be of the same nature as evolution in general. Structurally considered, it may consist in a larger sum of actions, or more multiplied varieties of actions or both—a larger amount of sensible and insensible motion generated, or motions more numerous in kind and more intricate and exact in co-ordination, or motions that are greater alike in quantity, complexity and precision."¹⁰ Thus the future progress of civilization " will be accompanied by an enhanced cost of Individuation, both in structure and function ; and more especially in nervous structure and function. . . . So that both in original cost of construction and in subsequent cost of working, the nervous system must become a heavier tax on the organism. Already the brain of the civilized man is larger by nearly

⁶ H. Spencer, *Principles of Biology*, Vol. II, p. 401.

⁷ H. Spencer, *Ibid.*, Vol. II, p. 406.

⁸ H. Spencer, *Ibid.*, Vol. II, p. 471.

⁹ H. Spencer, *Ibid.*, Vol. II, p. 479.

¹⁰ H. Spencer, *Ibid.*, Vol. II, p. 494.

thirty per cent. than the brain of the savage. Already, too, it presents an increased heterogeneity—especially in the distribution of its convolutions. And further changes like these which have taken place under the discipline of civilized life, we infer will continue to take place. But everywhere and always, evolution is antagonistic to procreative dissolution. Whether it be in greater growth of the organs which subserve self-maintenance, whether it be in their added complexity of structure, or whether it be in their higher activity, the abstraction of the required materials implies a diminished reserve of materials for race-maintenance. . . . Hence, the particular kind of further evolution which man is hereafter to undergo, is one which, more than any other, may be expected to cause a decline in his power of reproduction.¹¹

Herbert Spencer with a sort of native optimism believes that the increase of population, which, he regards to be so highly desirable in the earlier stages of human development, will itself come to an end when the man is fully civilized and the earth is fully peopled. As he remarks, "The excess of fertility has itself rendered the process of civilization inevitable; and the process of civilization must inevitably diminish fertility, and at last destroy its excess. . . . After having caused, as it ultimately must, the due peopling of the globe, and the raising of all its habitable parts into the highest state of culture—after having brought all processes for the satisfaction of human wants to perfection—after having, at the same time, developed the intellect into complete competency for its work, and the feelings into complete fitness for social life—after having done all this, the pressure of population, as it gradually finishes its work, must gradually bring itself to an end."¹²

This belief of Herbert Spencer in the reduced fecundity of man as he progresses in civilization was shared by a number of economists of the last century. Carey, for instance, clearly realised the increasingly greater advantages that the growth of population brings about in the earlier stages of the development of a big and fertile but unpopulated country, but he did not think that this process could continue indefinitely. Ultimately, a reduced rate of increase of population would be desirable, if the higher standard of life is to be maintained. Carey, like Herbert Spencer, thought that this would be brought about by the decrease of human fecundity through the greater use of nervous energy required by an advancing civilization.¹³

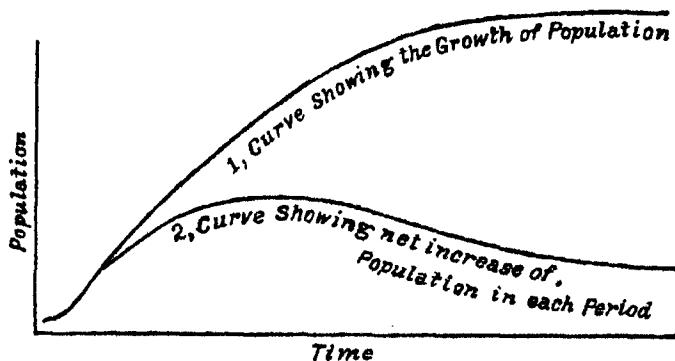
¹¹ H. Spencer, *Principles of Biology*, Vol. II, pp. 501-502.

¹² H. Spencer, *Ibid.*, Vol. II, p. 506.

¹³ Carey's *Principles of Social Science*. Compare also the views of Henry George that the tendency of population to increase instead of being always the same, is stronger where a greater population would give increased comfort or where the perpetuity of the race is threatened by the mortality induced by adverse circumstances, but is weaker

Bagehot also believed that advance in civilization involving greater expenditure of nervous energy, particularly of women, will bring about a decreased fecundity. As he remarks, " Probably of all causes which regulate the pace of population, the nervous state of the woman is the most important, it seems to have a kind of cyclical course as society advances. There is much reason to think that in the earliest state in which we know man to have lived—the state of the old slave age and the present savages—the hard labour and insufficient food of the women tend very much to keep down the increase of numbers. At a later period, the improvement of food, better shelter, diminution of work during pregnancy, bring the bearing power of women up to its maximum. The highland women of Adam Smith probably was able to bring into the world as many children, and physically at least, as strong children, as any one who ever lived. After that, not only the luxury of which he speaks, but education and the habit of using the mind tend almost certainly to diminish the producing power. There is only a certain quantity of force in the female, and if that force is invested, so to say, in one way, it cannot be used in another."¹⁴

Another biological theory of the growth of numbers suggests that the fecundity changes with the density of population. This view has been, recently, put forward very lucidly by Dr. Pearl.¹⁵ Population of organisms of the most diverse kinds ranging from bacteria and yeasts to man increases very rapidly in the beginning, then the increase becomes slower and slower until it is hardly perceptible. Diagrammatically it may be represented as follows:—



where there is a higher development of the individual and where the perpetuity of the race is assured.—*Progress and Poverty*.

¹⁴ *Economic Studies*, p. 184 (Longmans, Green & Co., London, 1902).

¹⁵ R. Pearl's *Studies in Human Biology* (1924), and *Biology of Population Growth* (1926).

The first curve¹⁶ shows the actual population at different periods of time and the second curve shows the net increase of population in the successive periods. Dr. Pearl observes that the phenomenon shown by the second curve, namely, "that the absolute increment of growth per unit of time increases with time to a maximum value and then decreases till the end of measurable growth is reached, has been found in recent years to be the way in which populations of such a wide variety of organisms actually grow, that it may now be fairly regarded as the characteristic normal mode of population to at least a first approximation..... It has been shown that experimental population of yeast, of bacteria, and of the fly *Drosophila melanogaster* follow this characteristic curve with great precision in their growth. Furthermore, it has been demonstrated statistically that population of human beings have grown according to the same type of curve, so far as may be judged from the available census records, in at least the following places: Sweden, United States of America, France, Austria, Belgium, Denmark, England and Wales, Hungary, Italy, Norway, Scotland, Servia, Japan, Java, Philippine Islands, Baltimore City, New York City, and the world as a whole."¹⁷

What is of great importance from the point of view of the present discussion is the method by which the rate of growth of population decreases as the density of population in the given area increases. According to Dr. Pearl it is not solely by increased death-rate, which the Malthusian assumption of a constant birth-rate will certainly involve, but also by the lowering of the birth-rate itself. Dr. Pearl concludes from numerous experiments conducted on the growth of lower organisms (in limited space, of course,) that the number of progeny produced per female . . . declines as density increases, at first extremely rapidly and then more and more slowly at higher densities. The explanation of these changes in the rate of growth of human populations as in the case of the lower organisms may be found, according to Dr. Pearl, in 'the more fundamental causes, biological, physical or chemical'.¹⁸

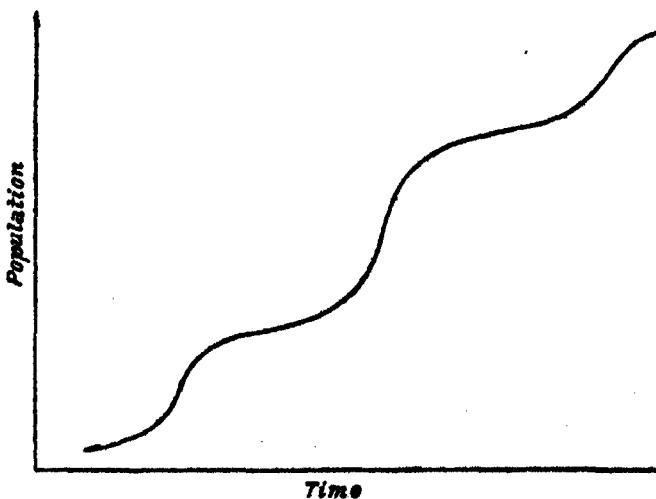
¹⁶ This curve indicating the growth of population was first discovered by the Belgian Mathematician Verhulst in 1838. As Dr. Pearl says, "His pioneer work was forgotten and overlooked by most subsequent students of the population problem. In 1920, the present writer and his colleague L. J. Reed without any knowledge of Verhulst's prior work, independently hit upon the same equation." P. 26, *World Population Conference, 1927.*

Verhulst called this curve the *logistic*. This usage is followed by Dr. Pearl and others.

¹⁷ *Proceedings of the World Conference, 1937*, pp. 22-38.

¹⁸ *Studies in Human Biology*, p. 585.

The application of these ideas to human populations is very much limited by the fact that the conditions under which human populations live and grow, unlike that of lower organisms, are being constantly changed by man's own efforts. Not only new areas may be made more habitable, but greater knowledge of things that surround man and their better utilisation constantly change the population bearing capacity even of the old inhabited areas. The introduction of such changes would mean the starting of a new cycle of growth, and no finality of conclusion can be reached unless it is assumed that the conditions under which man lives and grows are unchanging. Dr. Pearl himself emphasises that the logistic curve is applicable "always be it understood, on the assumption that the average standard of living, method of agricultural production, etc., either do not change at all, or that the net effective magnitude of any such changes as do occur will be relatively so small as to be negligible in comparison with the effect of such factors as reproduction and immigration in determining the relation between population and time in an area of fixed limits."¹⁹ And he correctly observes that "history tells us what common sense indicates *a priori*, namely, that each advancement in cultural level has brought with it the possibility of additional population growth within any defined area".²⁰ Historically the increase of population under these changing conditions is more correctly represented as follows :—



As the magnitude of the changing forces may be very different, the growth of population in each cycle will also greatly differ, beginning with

¹⁹ *Studies in Human Biology*, p. 566.

²⁰ *Ibid.*, p. 568.

a small wave, it may subsequently increase into a bigger one. But as the nature and the magnitude of the changing factors is so uncertain, logistic theory can hardly afford a satisfactory basis for predicting the future course of population in the long run.

We may here also refer to another theory which maintains that populations follow cycles of growth and decline. These fluctuations are due to variations in the reproductive capacity, and populations by exhaustion of their biological force at a certain period of their revolution become stationary and even decline. These views are held by some very eminent Italian economists. Niti, for instance, thought that "the birth-rate is subject to laws which were utterly unknown to Malthus and Malthusians, we have seen nations enter upon a period of great civilization, become rich, have a very dense population, and then suddenly become unpopulous and decadent from a slow anemia. And, on the other hand, we have seen nations which long remained in a state of slight civilization, become rapidly populated and centre of a new civilization under the influence of external causes. Many ancient civilized states came to an end not by invasions of war, but solely by a cessation of the birth-rate."²¹

Prof. Gini has further developed these views. "Differential reproductivity is generally ascribed to environmental factors, such as wealth, intellectual development, the comforts of life, the growing rationalisation of human conduct, and we cannot deny the influence of these factors. Undoubtedly, the conveniences of life and intellectual activities detract from the importance of genetic instincts, affording other pleasures than those of the satisfaction of such instincts, and probably also weakening them. It is also certain that the limitation of families is still more important as a means to improving their material conditions and therefore has greater hold on parents as their wealth increases. But it is very uncertain whether these factors should be considered as the most important, and it cannot be excluded that the fact that they assume importance depends on a weakening of the genetic instinct, the first symptom of a weakening of the reproductive power. That the forces which tend to lower the population consist in a gradual loss of reproductive power, will not seem strange to those who reflect that the gradual loss of reproductive power is a general characteristic of somatic cells, the original formation of which is not different from that of the germinal cells. It would, therefore, seem natural that they also should follow a similar curve, even though at a much slower rate, due to their being much

²¹ *Population and Social System*, p. 114.

less exposed to the differential action of the environment."²² Prof. Gini sees in this decline of population through the loss of reproductive capacity a great natural factor for the progress of man and civilization. As he remarks, "The numerical reduction of the upper classes and of the nations of the oldest civilization is seen to afford a provident natural mechanism by which certain racial and social elements, after contributing to national and world progress, gradually disappear from the scene of history before manifesting those symptoms of decadence which would have been inevitable in the future. In a similar way, nature has wisely provided that the old shall disappear after accomplishing their task, instead of prolonging indefinitely a life which, whatever the past merits and gifts may have been, could not help becoming in the long run a burden on society. . . . And an attempt to revive the reproductive power of the upper classes or of the nations of an older civilization in view of the aptitude which in the past led to their elevated position, in society and in the world, to the detriment of the lower classes and of the less evolved nations which are preparing to take their place, would be a programme as deleterious for the progress of civilization and humanity as that of prolonging the life of the aged, thereby preventing the generations which are growing up from taking their place."²³

We have here grouped together a number of divergent views. But all of them attack the Malthusian assumption of an unchanging fecundity and hence a natural rate of increase of population which had been taken as a fixed quantity. They all suggest that human fecundity or the birth-rate is itself subject to changes, and populations may increase, be stationary or even decline due to the alterations in the physiological processes working in man.

There is a great lack of evidence for the decline of reproductive powers which may set in after a certain point or period in the growth of human population. People with the oldest civilizations, like the Hindus, the Chinese

²² *Proceedings of the World Population Conference*, pp. 165-166.

²³ These views by Prof. Gini are set out in detail in the following books of his:—
(i) *Il sesso dal punto di vista statistico*, 1908.

(ii) *I fattori demografici dell' evoluzione delle nazioni*, 1912.

(iii) *Problemi sociologici della guerra*, 1921.

Similar views were put forward in England by Dr. Brownlee and Dr. Chalmers that the fluctuations in the reproductive capacity of human populations are due to rhythmic variations in germinal vitality; just as they are in case of the sudden increase of the germs of infectious diseases, or of the swarms of locusts and field mice. The rapid growth of human population, itself a sign of great vitality, is also very often accompanied by great literary achievements, extensive colonisations and racial adventures in many other directions. See *Report of the National Birth-rate Commission*, 1916; also *The Fall of the Birth-rate*. By G. U. Fule, 1920.

and the Jews are yet amongst the most prolific races of the earth. Moreover no rapid changes seem to be taking place in the physiology of man, which may make his reproductive capacity vary easily with the changing circumstances. And if the control of birth is necessary and desirable in the present or in any future, near enough to be of interest to us, it has got to be a conscious effort more through the play of psychological forces leading to the limitation of the family.

AN ODD COPPER-PLATE OF THE VĀKĀTAKA KING PRAVARASENA II.

BY PROF. V. V. MIRASHI, M.A.,

Morris College, Nagpur.

THIS plate belongs to a set of about five copper-plates, which was discovered a few years ago by some contractors while digging for manganese at Mansar near Rāmṭek. The contractors divided the plates among themselves. After some of them had left the Province, the news of the discovery reached Mr G. P. Dick, Barrister-at-Law of Nagpur, who could consequently recover only one of the plates. It was in his possession until his departure for England. Subsequently it seems to have been lost. The late Rai Bahadur Dr. Hiralal, to whom impressions and photographs of the plate were sent, soon after it was recovered, has given a short account of it in his *Inscriptions in the Central Provinces and Berar*¹; but the plate has remained unedited so far. At my request R. B. Hiralal kindly sent me its impressions, but they were lost in transit. He subsequently sent me its photographs which were with him, and desired me to edit it. I tried to secure other plates of the set with the help of some local contractors who knew the men who had discovered it at Rāmṭek. None of them is now living; but from some of their acquaintances I learn that one or two of the plates have travelled as far as Kathiawad. My efforts to secure them have so far proved unsuccessful. R. B. Hiralal thought that the Patna Museum third plate published in the *Journal of the Bihar and Orissa Research Society*, Vol. XIX, p. 461 ff., belonged to the same set as the Rāmṭek plate, but as I have shown in the last number of the *University Journal*² this is unlikely. As a matter of fact the Patna Museum plate was discovered at Bālāghāṭ and as I have already shown some of the places mentioned in the record on it can be traced in the vicinity of its findspot. As the photographs in my possession are now the only evidence of the Rāmṭek inscription, I think it desirable to publish them, without waiting indefinitely for the recovery of other plates of the set. The photographs sent to me by R. B. Hiralal have faded owing to lapse of time. They have, therefore, been kindly re-photographed by my friend Mr. M. A. Suboor of the Central Museum, Nagpur. The plates accompanying this article have been prepared from the photographs taken by Mr. Suboor.

¹ Second Edition, pp. 4-5.

² *Nagpur University Journal*, No. 2, p. 49.

As shown below the present plate records a **Vākāṭaka grant**. A Vākāṭaka copper-plate inscription generally consists of five plates. Of them, the first two contain the genealogy of the donor commencing from his ancestor, the well-known Vākāṭaka emperor Pravarasena I. On the third plate are generally given the particulars about the grant—the occasion on which it was made, the name, *gotra*, etc., of the donee, the name of the village, its boundaries, etc. The fourth plate enumerates the conditions of the grant and the immunities allowed to the donee. This is followed by the usual benedictory and imprecatory verses, the regnal year when the grant was made and the names of the writer and the *dūtaka*, which occupy the fifth plate. The present plate which contains an enumeration of the immunities is, therefore, probably the fourth or penultimate plate of its set. The photographs sent by R. B. Hiralal measure 5·6" by 3·1". About 1·3" from the proper right end of them, there is a round hole 0·3" in diameter for the ring which must have originally held the plates together. As the scale of the photographs is not known, it is not possible to state the exact dimensions of the original plate. Judged by the photographs the plate seems to be in a state of very good preservation, only two or three letters in the last two lines being slightly damaged by rust. There are five lines on either side. The fifth line on the first side is somewhat shorter than the rest, as there was not sufficient space for more letters in the lower proper left corner. The **characters** are of the box-headed variety of the central Indian alphabet and closely resemble those on other discovered Vākāṭaka plates especially those of Pravarasena II. The only peculiarities worth noticing here are that (1) the medial *au*, which is generally bi-partite in Vākāṭaka records is shown in *pautra* 1·7 by two curves, that on the right-hand being wrongly made to turn to the left; (2) the sign for medial long *i* is a curling curve generally turning to the left (see e.g., *kṣīra* 1·4), but in *bhuñjītaḥ* (for *bhuñjataḥ*) in ll. 7-8, it is made to turn to the right; and (3) the signs for the *jivhamūliya* and *upadhmāniya* occur in ll. 4 and 8 respectively. The **language** is Sanskrit and the extant portion is wholly in prose. As will be seen from the transcript given below, the record has been written very incorrectly and carelessly. Absence of *Sandhis*, omission of the *visarga*, the use of *n* for *ṇ* and of incorrect grammatical forms like *kuryāt* and *kārayīta* are some of the glaring mistakes. Similar mistakes are, however, noticed in all Vākāṭaka grants. The scribe has omitted some words at the end of l. 1 and several more after *atm-ānugrahāya* in l. 3 as shown below in the foot-notes to the transcribed text.

As the first three plates are not now forthcoming, all important particulars of the grant, viz., the names of the donor and the donee, the land or

the village granted, its boundaries, etc., are lost. But as the characters of the present plate resemble those of the Patna Museum and other plates of the Vākāṭaka king Pravarasena II, the present grant also was probably made by him. The opening words of the extant portion state that it was made for the increase of religious merit, life, strength and prosperity of the donor. This statement clearly shows that the present plate could not have belonged to the same set as the Patna Museum plate which records a gift for the increase of religious merit of Pravarasena II's mother. The subsequent portion records the usual immunities granted in respect of *agrahāra* villages. Except for certain variants, they are identical with those which usually figure in Vākāṭaka copper-plate inscriptions. The concluding lines convey the royal order that none should cause an obstacle in the enjoyment of the gift, but that it should by all means be protected and augmented. This was followed by the usual warning, only part of which appears on the present plate, that whoever, disobeying the royal order, would cause the slightest hindrance, would receive condign punishment, if reported against by the Brāhmaṇas. In the absence of the last plate, it is not possible to state the names of the writer and the *dūtaka*, nor the regnal year when the grant was made.

The plate thus makes no addition to our historical information; for, the formal part of the grant which is preserved on the present plate, is common to several other Vākāṭaka inscriptions. It may not, however, be out of place to discuss here the meaning of the technical terms occurring in it, since they have not so far received the attention they deserve. Editors of Vākāṭaka grants have in the past concentrated their attention, and naturally so, on the historical information to be derived from them. That temptation being absent in the present case, I propose to trace the technical terms which occur in the extant portion to earlier records to see what light they shed on the original home of the Vākāṭakas.

1. सर्वाध्यक्षनियोगनियुक्ता आजासकारिकुलपुश्चाधिकृताः (भद्राशकाम्रात्म).—' (The soldiers and umbrella-bearers) working under noble men touring by our command, who are appointed by the order of the General Superintendent.' There is a similar expression in the Hirahadagalli Prakrit grant³ of the Pallava king Śivaskandavarman, viz., *anne vi cha amha-pesāna-payutte samcharamataka-bhadā-manusāna* which Bühler has translated 'and all others employed in our service, to roaming (spies) and warriors.' We may also compare the expression which occurs in the Mangadur Sanskrit grant⁴ of the Pallava

³ *Epigraphia Indica*, Vol. II, p. 5.

⁴ *Indian Antiquary*, Vol. V, p. 155.

king Simhavarman : सर्वाध्यक्षवद्भशासनसञ्चारिणः. आज्ञासञ्चारि- in our plate exactly corresponds to शासनसञ्चारिणः in the above grant and evidently refers to officers touring in the districts by royal command. The expression need not be restricted to spies.

2. अभट्टचाप्रवेश्यः—‘Not to be entered by soldiers and umbrella-bearers.’ This corresponds to अभडपेस in the Mayidavolu plates⁵ of the Pallava king Śivaskandavarman. *Bhaṭas* and *Chhāṭras* are evidently identical with the *bhaṭas* and *chāṭas* of later inscriptions. They were forbidden to enter the *brahmādāya* villages except when they had to apprehend thieves and persons accused of high treason.⁶ They were, therefore, royal servants whose duty it was to maintain peace and order in the kingdom. They correspond to modern policemen and soldiers. *Chhāṭra*, lit. an umbrella-bearer, indicates by *lakṣhaṇā* the wider sense of a royal servant, here a policeman.

3. अपारम्परगोबलिवृद्धिगद्यं.—This corresponds to अपारंपरालिवृद्धिगद्यं of the Hirahadagalli plates and अपरंपराबलिवद्^[द*] of the Mayidavolu plates⁷. These expressions are generally taken to denote ‘exemption from the obligation of furnishing by turns draught cattle for the progress of royal officers.’ In former times it was considered to be the duty of villagers to supply means of transport for the touring of royal officers. Sometimes, a small tax called *prayāna-dāṇḍa*⁸ was levied for the purpose. But the use of the word *go* (cow) in addition to *balivarda* in Vākāṭaka records rather indicates that the village was exempted from the obligation of giving to the State the first calf—male or female—of every cow in the village. The *Manusmīti* (Vol. VII, p. 130) also mentions a tax on cattle.

⁵ *Epigraphia Indica*, Vol. VI, p. 87.

⁶ Note अच्चाटभट्टप्रवेश्यः in the Khoh plates of Hastin, of the year 156. (Fleet’s *Gupta Inscriptions*, p. 96.) Fleet, relying on समुचितराजाभाष्यप्रत्याया न प्राण्याः[ः*] चोरदण्डवज्यम् in the Khoh plates of Jayanāth; of the year 177, translates (*ibid.*, p. 98)—‘not to be entered by the irregular or regular troops, (but) with the exception of (the right to fines imposed on the thieves). It would appear very queer if the king reserved the fines imposed on thieves for himself when he gifted away the whole village. In the Pārdī plates of Dahrasena occurs the expression चोरराजापथ्यकारिवज्यम्. The complete expression which owing to the carelessness of draftsmen rarely occurs in a correct form is अभट्टचाप्रवेश्यः, चोरराजापथ्यकारिदण्डवज्यम्. It secured to the *agrahāra* villages immunity from entry of royal soldiers and policemen except when they had to punish thieves and persons accused of high treason. *Dāṇḍa* means punishment here and not a fine as supposed by Fleet.

⁷ *Epigraphia Indica*, Vol. VI, p. 87.

⁸ Cf. राजसेवकानां वसर्तदण्डप्रयाणदण्डो न सः | in the Paithan grant of Rāmachandra (*Ind. Ant.*, Vol. XIV, p. 318).

4. अपृष्ठक्षीरसन्दोहः.—Similar expressions अहरितकसाकपुण्फगहृणं 'free from the taking of vegetables and flowers' and अदूधदधिगहृणं 'free from the taking of sweet and sour milk' occur in the Hirahadagalli plates. As I have shown elsewhere,⁹ these taxes in kind levied on villagers, etc., are mentioned in the *Manusmṛiti*.

5. अगारासनचर्माङ्गारः.—The recently discovered Paṭṭan plates of Pravarasena II give the same reading as here. Other Vākāṭaka plates read अचारासनचर्माङ्गारः, which has been translated by Fleet as 'It does not carry with it (the right to) pasturage, hides and charcoal.' He thought that this and other similar expressions reserve certain rights to the villagers against the grantees. But such an interpretation does not appear to be correct. The expression evidently exempts the donee from the duty of feeding and lodging royal officers during their stay in the village. Later grants mention a tax (called *vasati-dāṇḍa*) which was sometimes levied for the purpose. The expression अतणकदृग्हाणं 'free from the taking of grass and wood' in the Hirahadagalli plates conveys a similar meaning. Another expression अकूरचोलकविनासिखटासंवासं in the Pallava grants lays down exemption from the obligation of supplying boiled rice, water-pots, cots and dwellings. In the present case, *chāra* would denote grass for feeding the horses, etc., of the touring officers, *āsana-charman*, the hides used as seats and *angāra* (charcoal), the fuel necessary for cooking.

6. अलवणङ्ग्ल(ङ्ग)मः.—This corresponds to अलेनखादकं in the Mayidavolu and अलेणगुलच्छोभं in the Hirahadagalli plates. Similar expressions occur in the Nasik inscriptions Nos. 3 and 4 and Karle inscription No. 19 of the Sātavāhanas. Digging for salt was a royal monopoly and salt mines existed in Berar until very recent times, Loṇār (Sanskrit *Lavanākara*) in the Buldānā District, being specially noted for them. The *Arthaśāstra* of Kauṭilya gives *kliptā* in the sense of a fixed assessment or a tax. The present expression, therefore, indicates that the donee was not required to pay the tax on the salt dug in his village.

7. अक्रेणिखनकः.—This expression is found joined to the preceding in other Vākāṭaka records which generally read अलवणङ्ग्लक्रेणिखनकः which may mean 'exempt from the royal prerogative of purchasing and digging salt and fermenting liquors'. In this connection the expression अलेणगुलच्छोभं in the Hirahadagalli Pallava grant may be noted.

⁹ *Epigraphia Indica*, Vol. XXII, p. 175, No. 7.

8. सर्वविष्टिपरिद्वारपरिहृतः—'Exempt from all kinds of forced labour'. *Vishṭi* is clearly modern *veth* (forced labour). Cf. अकरेदित्कौजङ्ग in the Pallava grant.

9. सपरिक्षेपसंक्षिप्तः—This is evidently a mistake for the usual expression सकूसोपकृतः which means 'together with major and minor taxes'. It corresponds to the later सोद्रष्टः and सोपरिकरः.

The close similarity between the technical terms for the exemptions used in the Vākāṭaka Sanskrit grants and those in the Pallava Prakrit inscriptions—such as is noticed nowhere else¹⁰—will show that the draftsman of the former has borrowed them from the latter. Besides these, we may notice here the following points of similarity, though they do not occur in the present fragmentary inscription: (1) Vākāṭaka grants when complete begin with *dṛiṣṭam* which corresponds to *dītham* seen on the outer side of the first plate of both the Mayidavolu and Hirahadagalli Pallava grants. (2) The Riddhapur plates¹¹ of Prabhāvatiguptā begin like the Pallava Sanskrit grants with the words जितं भगवता. (3) The words आशा स्यं at the end of the Tirodi plates recall similar expressions सयमाणतं and आनति सयति इत्ता at the close of the Hirahadagalli and Mayidavolu plates respectively.

These similarities are surely not accidental. As the rule of the Pallavas never extended to the Central Provinces and Berar, we cannot explain them as due to the employment, by the Vākāṭakas, of the clerks who were previously in the Secretariat of the Pallavas. The striking similarities in several expressions pointed out above clearly presuppose some connection of the Vākāṭakas with the Pallavas and this is corroborated by the discovery of an inscription¹² of a Vākāṭaka householder on a pillar at Amarāvati in the Āndhra country. That the rule of the Pallavas extended to the Āndhra country in the north is well known; for the Mayidavolu plates record the grant of a village in the Āndhā-patha (Āndhra-patha) to two Brāhmaṇas. Mere discovery of a pilgrim record at a holy place is, of course, no clear evidence that the pilgrim was a resident of that or even of a neighbouring country, but in conjunction with close similarity in a number of technical expressions, which cannot be merely accidental, it may be taken to point to some sort of connection between the two royal houses. We

¹⁰ Two of these occur in the inscriptions, e.g., Nasik inscriptions (Nos. 3 and 4), of the Sātavāhanas, from which the Pallavas had evidently taken them. That the Āndhra country was ruled by the Sātavāhanas before it came under the rule of the Pallavas is well known.

¹¹ J.A.S.B., (N.S.), Vol. XX, p. 58.

¹² *Epigraphia Indica*, Vol. XV, p. 267.

shall not, therefore, be wrong in supposing that the Vākāṭakas had their home in the south.

This conclusion is again corroborated by the findspots of Vākāṭaka inscriptions. The earliest known inscription of the Vākāṭakas was discovered at Deoṭek¹³ in the Chāndā District. It records the construction of a *dharma-sthānam* by Rudrasena whom I have shown on the evidence of palaeography¹⁴ to be Rudrasena I. Several copper-plate inscriptions of Pravarasena II and an incomplete one of Pṛithivishēṇa II have been discovered in different parts of the Central Provinces and Berar. The only records connected with the Vākāṭaka dynasty which have been discovered to the north of the Narmadā are the Nachnā¹⁵ and Ganj¹⁶ inscriptions of Vyāghradeva, a feudatory of the Vākāṭaka king Pṛithivishēṇa. As Prof. Dubreuil and Rao Bahadur Dikshit have shown, he must be identified with Pṛithivishēṇa II on the evidence of palaeography. Vyāghradeva is, therefore, probably identical with the Uchchakalpa prince Vyāghra who, we know, was ruling over the adjoining territory.¹⁷ The Bālāghāṭ plates of Pṛithivishēṇa II state that the ruler of Malwa was a feudatory of his father Narendrasena and it is not unlikely that Pṛithivishēṇa's own authority was recognized in Central India towards the close of the fifth century A.D. The Nachnā and Ganj inscriptions, therefore, do not in any way go against the foregoing conclusion about the original home of the Vākāṭakas.

The late Dr. Jayaswal recently advanced the theory that the Vākāṭakas originally hailed from Bāgāt in the Orcha State.¹⁸ In support of his view he has tried to show that three coins discovered at Kosam and another place in North India were issued by Pravarasena I, Rudrasena I and Pṛithiviśeṇa I.¹⁹ The first two, according to him, bear the dates 76 and 100 respectively, which he refers to the era of 248 A.D. This era though called by the name of the Chedi or Kalachuri era, was, according to Jayaswal, really started by the Vākāṭakas. But Jayaswal's readings of the legends and figures on the coins are extremely doubtful. Besides his theory that the Chedi era was really founded by the Vākāṭakas is disproved by the fact that the Vākāṭakas themselves never used it, but dated all their records in

¹³ My article entitled "New Light on Deoṭek Inscriptions" will appear in the *Proceedings of the Eighth Oriental Conference*.

¹⁴ *Gupta Inscriptions*, p. 233 ff.

¹⁵ *Epigraphia Indica*, Vol. XVII, p. 12 ff.

¹⁶ See my article "A Note on the Dates of Uchchakalpa Kings" to be published in the *Epigraphia Indica*, Vol. XXIII.

¹⁷ *History of India*, 150 A.D. to 350 A.D., p. 67.

¹⁸ *Ibid.*, p. 108 ff.

regnal years. According to the Purāṇas Vindhyaśakti's son Pravīra, who has been rightly identified with Pravarasena I, ruled at two places Purikā and Chanakā.¹⁹ Jayaswal's identification of Chanakā with Nachnā cannot be accepted in the absence of corroborative proof. As for Purikā it was situated according to the *Harivamśa*²⁰ at the foot of the Ṛikshavat (modern Satpura) mountain, and, therefore, in the Central Provinces or Berar. Vindhyaśakti, the first ancestor of the Vākāṭakas, may have been so called because he extended his power to the foot of the Vindhya mountain in the north. There is thus no valid argument against our view that the Vākāṭakas had their original home in the south.

¹⁹ I adopt the reading suggested by Jayaswal मोक्षयन्ति च समाः षष्ठि पुरिकां चनकां च दै। See *History of India*, etc., p. 16.

²⁰ *Vishṇuparvan*, Adhyāya 38, Sl. 21-22.

Text.²¹

First Side.

१. सर्वाद्यक्षनियोगनियुक्ता आज्ञासञ्चारिकुलपुत्राधगत²²
२. पूर्वसमाज्ञया²³ ।²⁴ वक्तव्या यथासाभिरात्मधम्मायुर्बल-
३. मै²⁵शर्यविशृद्धये इहापुत्रं चात्मानुग्रहाय²⁶ अभट-
४. इच्छाप्रावेद्य²⁷[ः*] अपारम्परगोचलिवर्द्ध[ः*] अपुरुषं²⁸क्षीरसन्दो-
५. ह[ः*] अपारा²⁹सनचम्माङ्गार[ः*] अलवणक्षिसो-³⁰

Second Side.

६. क्रेणिखणक[ः*] सर्ववे(वि)ष्टिपरिहारपरिह(ह)तः सपरिक्षिसो-³¹
७. परिक्षिस आचन्द्र(न्द्रा)दित्यकालीय[ः*] पुत्र[पौ]आनुगामी[*] भु-
८. ऊतिः³² न केनचिद्वाधातरकर्तव्य[ः*] सर्वक्रियाभिः³³ रक्षि-
९. तव्यः परिवर्द्धयितव्यश्च[*] यश्चासच्छासनमगनयमान³⁴
१०. स्वल्पामपि परिवाधा³⁵ कुर्यात्कारयिता वा तस्य ब्राह्मणै-³⁶

²¹ From the photographs supplied by the late R. B. Dr. Hiralal.

²² Read कुलपुत्राधिकृता भटाश्चात्रात्म as in the Paṭṭan plates (*Epigraphia Indica*, Vol. XXIII, p. 86).

²³ Read विश्रुतपूर्वसमाज्ञया. Compare विश्रुतपूर्वयाज्ञया which occurs in the Siwani and Chammak plates (*Gupta Inscriptions*, pp. 238 and 246).

²⁴ This mark of punctuation is superfluous.

²⁵ Read—बद्धलैश्चर्यविशृद्धये.

²⁶ Some words like एष प्राम उदकपूर्वमतिसृष्टः । अथास्योचिताम्पूर्वराजानुमतां चातुर्वैष्णवाग्रहारमर्यादां वितरामः । तथाथा are inadvertently omitted here.

²⁷ Read अभटच्छात्रप्रावेद्यः.

²⁸ Read अपुष्ट-

²⁹ Other cognate Vākāṭaka plates generally read अचारासन-, but the recently discovered Paṭṭan plates have the same reading as here.

³⁰ Other Vākāṭaka plates generally read अलवणक्षिसक्रेणिखणकः, but the Poona plates of Prabhāvatigupta read अलवणक्षिसक्रेणिखणकः.

³¹ The usual reading is सक्षलुसोपक्षलुसः.

³² Read भुजतः.

³³ Read सर्वक्रियाभी.

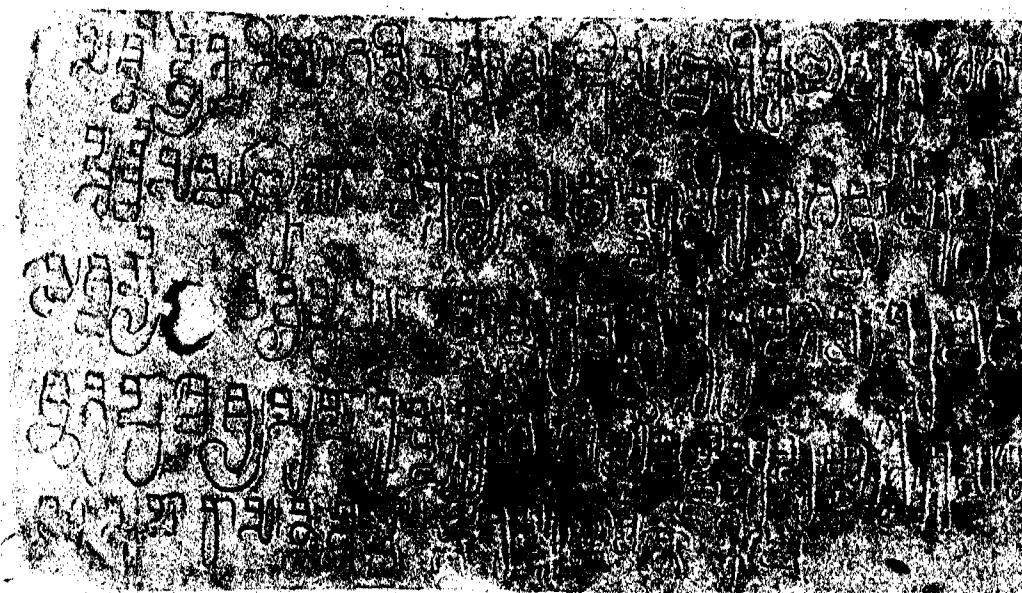
³⁴ Read मग्नयमानः.

³⁵ Read परिवाधा कुर्यात्कारयेद्वा.

³⁶ The concluding words of this sentence must have been वेदितस्य सदण्डनिग्रहं कुर्याम् । as in other Vākāṭaka records.

AN ODD COPPER-PLATE OF THE VĀKĀṬAKA KING PRAVARASENA II.

First Side



Second Side



EPIGRAPHIC NOTES—III.

BY PROF. V. V. MIRASHI, M.A.,
Morris College, Nagpur.

Interpretation of Inscriptional Passages.

IN the Jubbulpore copper-plate inscription of the Kalachuri king Yaśahkarṇa there occurs a verse about his grandfather Gāṅgeyadeva, which Prof. Kielhorn read as follows¹ :—

स वीरसिंहासनमौलिर[त्वं] स विक्रमादित्य इति प्रसिद्धः ।
य[स्माद]कस्मादप[वर्ग ?] मिच्छज्जुकु[च्छ]ल[ः] [कुं स्वजि ?] तां व(ब)भार ॥

The copper-plate, it seems, was not properly cleaned before its ink-impressions were taken for Kielhorn. Many of its letters, which were choked up with rust, did not apparently come out well in the impressions supplied to him. Consequently in his decipherment Kielhorn was doubtful about several *aksharas* as will be seen from his transcript given above. Bad readings lead to worse interpretations ! It is not surprising, therefore, that he translated the verse as follows² :—

'The crest-jewel of the crowned heads, he has become famous under the name of Vikramāditya ; for, striving after final beatitude (*and*) free from wicked deceipt he ruled the earth which he had himself conquered all of a sudden.'

The verse occurs again in the Khairhā plates of the same king which have been edited by R. B. Hiralal. As these plates are in a better state of preservation R. B. Hiralal's reading of it was as follows³ :—

स वीरसिंहासनमौलिरत्वं स विक्रमादित्य इति प्रसिद्धः ।
यस्मादकस्मादपयानमिच्छज्जुन्तलः कुन्तलतां व(ब)भार ॥

And he gave the following translation :—

'The crest-jewel of crowned heads, he became famous under the name of Vikramāditya ; wishing to run away from whom with dishevelled hair, (the King of Kunṭala) who was deprived of his country came to possess it again.'

¹ *Epigraphia Indica*, Vol. II, pp. 3-4.

² *Ibid.*, Vol. II, p. 6.

³ *Ibid.*, Vol. XII, p. 211.

In a note to this translation R. B. Hiralal remarked⁴: 'The meaning of the second line of the verse is very obscure. The writer evidently plays on the word *Kuntala* and has brought about what is called *virodhābhāsa*, when he says *akuntalah kuntalatām babhāra*, i.e., a hairless person bore hairiness (an apparent contradiction). The eulogist evidently seems to convey that Gāngeyadeva was so noble that he restored the Kuntala country to its king who was defeated and was running away with dishevelled hair (a second pun on the word *akuntala*).'

In his article on the plates,⁵ R. B. Hiralal has given the same interpretation of the verse in question, viz., that it alludes to the conquest and restoration of the Kuntala country to its king by Gāngeyadeva. He pointed out that the Kuntala country, which included the Kanarese districts of the Bombay Presidency and the Hyderabad State, was apparently the raiding ground of the neighbouring kings, as Tailapa, Kulottunga Chola, and Ballāla II claim to have conquered it at different times. He thus implied that the king of Kuntala, who was defeated and ultimately reinstated by Gāngeyadeva, was different from Tailapa.

R. B. Hiralal's interpretation has been followed by the scholars who have subsequently written on the subject. Mr. R. D. Banerjee, for instance, in his work *The Haihayas of Tripurī and their Monuments*⁶ quotes with approval the interpretation given above. Dr. H. C. Roy also has cited it⁷ though with some hesitation.

If we read the wording of the verse carefully, it would not appear to be as obscure as it has been supposed to be. Kielhorn's reading, given as it evidently was from an imperfect impression, has to be rejected. I have personally examined the Jubbulpore plate which is at present deposited in the Central Museum, Nagpur, and have found that it contains the same reading as the Khairā plates, except that the words *Vikramāditya* and *Kuntalatām* appear as *Vikamāditya* and *Kustalatām* through the mistakes of either the writer or the engraver. There is of course no difficulty about the meaning of the first half of the verse. In the last quarter, however, we have to make the *pada-chcheda* as *na Kuntalah* (and not *a-Kuntalah*) *kuntalatām va(ba)bhāra*. There is evidently a pun on the word *kuntala* here. The first word *Kuntalah* means the king of the Kuntala country. *Kuntalatām* has to be explained in two ways: (1) *Kuntalusya bhāvah* *Kuntalatām*, the

⁴ *Epigraphia Indica*, Vol. XII, p. 215.

⁵ *Ibid.*, Vol. XII, p. 207.

⁶ *Memoirs of the Archaeological Survey of India*, No. 23, p. 16.

⁷ *Dynastic History of Northern India*, Vol. II, p. 773.

position of the king of the Kuntala country, and (2) *kuntam lāti iti kuntalah*; *tasya bhāvah kuntalatā*, i.e., the state of one who wields a spear.⁸ As regards the second explanation, students of Sanskrit rhetoric will remember an analogous derivation of the word *kusala* given by Mammaṭa.⁹ The second half of the verse apparently means 'Wishing to run away suddenly from whom, Kuntala ceased to be Kuntala.' This involves contradiction but it is only apparent, for the words really mean 'Wishing to run away suddenly from whom the king of Kuntala ceased to wield his spear,' i.e., he gave up fighting with Gāṅgeyadeva and ran away. This verse is, therefore, intended to record a defeat of the king of Kuntala by Gāṅgeyadeva. It does not, however, state, that the king of Kuntala was deposed, nor, of course, does it imply that he was reinstated by Gāṅgeyadeva.

This defeat of the king of Kuntala by Gāṅgeyadeva is also referred to in another Kalachuri inscription. Thus the Gaharwā plates of Gāṅgeyadeva's son Karṇa describe Gāṅgeyadeva as 'fond of defeating the (king of) Kuntala in a (clever) manner.'¹⁰

This king of Kuntala was no minor chieftain of the Karṇāṭaka as implied by R. B. Hiralal's remarks. Kuntala no doubt comprised the Southern Maratha and adjoining Kanarese country. The imperial dynasties of the Rāshtrakūṭas and the Chālukyas who had their capitals in Kuntala, were known as Lords of the Kuntala country. In the *Kāvyamīmāṃsā* of Rājā Śekhara a king named Vallabharāja is described as ruling over Kuntala in the Deccan¹¹ (Dakṣinā-patha). This, as I have shown elsewhere¹², refers to the contemporary Rāshtrakūṭa king, for the Rāshtrakūṭas were known to the Arabs as Balhāras. Again in the *Navasāhasrāṅka-charita* Sindhurāja, the father of the illustrious Bhoja of Dhārā, is described as having regained his kingdom which had been previously overrun by the Lord of Kuntala.¹³ As I have shown elsewhere¹⁴, this means that Sindhurāja reconquered from the Later Chālukyas the territory which had previously

⁸ For this meaning see समरभुवि पुरः कृन्तलः कृन्तशाली । in the विद्वशालभण्डिका, Act V.

⁹ Cf. 'कर्मणि कुशलः' इत्यादै दर्भप्रहणाययोगात्, etc., in *Kāvyaprakāśa*, Ullāsa II.

¹⁰ तस्मात्कृन्तलभग्नभण्डिरसिको गाङ्गेयदेवोभवत् । *Epigraphia Indica*, Vol. XI, p. 143.

¹¹ अतिथ एत्थ दक्षिणाबधे कृन्तलेसुं सअलजणवल्लहो वलहराओ जाम राआ ।

Kāvyamīmāṃsā (Harvard Oriental Series edition), Act I.

¹² *Annals of the Bhandarkar Oriental Research Institute*, Vol. XI, pp. 366-67.

¹³ आकान्तादस्याऽडलकृन्तलेन्द्रसान्नाधकारान्तरितं रणं यः । स्वराज्यमस्त्रादणमण्डलाप्नो युद्धीतवान् दीधितिमानिवाहः ॥ Canto I, Sl. 74.

¹⁴ *Indian Antiquary*, Vol. LXII, p. 102.

been lost by his brother Muñja. The king of Kuntala, therefore, whom Gāngeyadeva is said to have defeated, must be the contemporary king of the Later Chālukya dynasty. This was probably Jayasimha-Jagadekamalla who ruled¹⁵ from about A.D. 1015 to A.D. 1042 and was thus a contemporary of Gāngeyadeva, whose Piāwan stone inscription¹⁶ is dated A.D. 1038 and who continued to reign¹⁷ till A.D. 1041.

II

The Rewā inscription of Malayasimha, a feudatory of the Kalachuri king Vijayasimha, is dated in the following words :—

चत्वारिंशस्यधिकेष्वद(ज्वे) चतुर्भिर्ज्वमे शते । शुक्रे साहसमालंके नाभस्ये प्रथमे दिने ॥

संवत् १४४ भाद्रपद सुदि १ शुक्रे श्रीमद्विजयसिंहदेवराज्ये ।

The late Mr. R. D. Banerjee first gave a transcript and translation of this inscription in his *Haihayas of Tripuri and their Monuments*¹⁸ and subsequently edited it with facsimile plates in the *Epigraphia Indica*.¹⁹ The date of the inscription is given as will be seen from the passage cited above both in words and figures as Friday, the first *tithi* of the bright fortnight of Bhādrapada of the year 944. Though the era is not specified, there is little doubt that the date is to be referred to the Kalachuri or Chedi era and regularly corresponds, for the expired Kalachuri year 944, to Friday, the 30th July A.D. 1193. But the difficulty lies in the explanation of the word *Sāhasamallāṅka*. Banerjee translated the above verse²⁰ as follows :—'In the year forty increased by four over nine hundred named Sāhasamalla, on the first day of Nābhasya (Bhādrapada), on Friday.' Banerjee has not, however, explained how the year was called Sāhasamalla. Sāhasamalla is not the name of any cyclic year. The cyclic year corresponding to the above date was Piṅgala according to the Northern system and Pramādin according to the Southern system. Neither of these names can be said to be a synonym of Sāhasamalla. In a foot-note on this date, Dr. Hirananda Sastri, the General Editor of *Ep. Ind.*, Vol. XIX, in which the inscription has been published, remarks²¹: "The significance of *Sāhasamallāṅka* is not clear. Does it mean 'the year of Sāhasamalla'? The word *āṅka* is at times used for *abda* or year and *Sāhasamalla* literally means 'athlete in boldness'. But whether *Sāhasamalla* refers to Vijayasimha or whether it

¹⁵ Sewell, *The Historical Inscriptions of Southern India*, pp. 61 and 69.

¹⁶ Cunningham's *Report of the Archaeological Survey of India*, Vol. XXI, p. 113.

¹⁷ *Epigraphia Indica*, Vol. XI, p. 146.

¹⁸ *Ibid.*, Vol. XI, p. 133 ff.

¹⁹ *Ibid.*, Vol. XIX, p. 295 ff.

²⁰ *Haihayas of Tripuri*, etc., p. 141.

²¹ *Epigraphia Indica*, Vol. XIX, p. 295.

has some other significance here is not known. Sāhasāṅka, it may be observed, is one of the epithets of Vikramāditya.”

This inscription is also included by Dr. D. R. Bhandarkar in his *List of Inscriptions of Northern India*. On its date he observes as follows²²:—‘It means that the Kalachuri era was called Sāhasamallābda. For *aṅka* compare ākhyā in *kālasya Vikram-ākhyasya* in No. 27. The dates²³ in Nos. 402 and 476 called Sāhasa may also be years of the Kalachuri era, as they work out alright for this era also.’ But Sāhasamalla does not mean the same as Sāhasāṅka. The latter, which means the same as Vikramāṅka, occurs in many places²⁴ as the name of Vikramāditya, the well-known patron of Kālidāsa and the reputed founder of the Vikrama Saṁvat. As Kielhorn has shown²⁵ both the dates qualified by Sāhasāṅka, which Prof. Bhandarkar proposes to refer to the Kalachuri era, appear quite regular as dates of the Vikrama era also. There is, therefore, no necessity to take them as dates of the Kalachuri era. Besides if they are referred to that era the first would fall towards the close of the fifteenth and the second in the first half of the sixteenth century²⁶ A.D. The palaeography of the inscriptions is certainly against ascribing such late dates to them. Besides, there is no evidence that the Kalachuri era was current in North India up to the sixteenth century A.D. Even in the Central Provinces, where petty Haihaya princes continued to rule until their principalities were annexed by the Marathas,

²² *The List*, etc., page 282, n. 2.

²³ These dates are as follows:—No. 402—V. 1240 Mahobā (Hamirpur District, U.P.) Fort Wall fragmentary inscriptions. Noticed by Cunningham, *A.S.I.R.*, Vol. XXI, p. 72 and Pl. XXII. L. 15 व्योमार्णवार्कसंख्याने साहसांक्य बत्सरे ; l. 17 संवत् १२४० आषाढ कदि ९ सोमे (= Monday the 4th June, A.D. 1184). No. 476—V. 1279 Rohtasgadh (Shahabad District, Bihar and Orissa) rock inscription of the time of King Pratāpa—Ed. by Kielhorn, *Epigraphia Indica*, Vol. IV, p. 311 f.—L. 1 नवभिरथ मुनीन्द्रेव्वासराणामधीशै परिकलयति संख्यां बत्सरे साहसांके। मदनविजययात्रामंगले मासि चैत्रे प्रतिपदि सितकान्तौ बासरे भास्करस्त् ॥ १ [॥५] (Sunday the 5th March A.D. 1223).

²⁴ Cf. सामर्थ्ये सति निन्दिता प्रविहिता नैवाप्रजे कूरता बन्धुलीगमनादिभिः कुचरितैराचर्जितं नायशः। शौचाशौचपराह्मुखं न च भिया पैशाच्चमङ्गाङ्गुतं त्यागेनासमाहसैश्च भुवने यः साहसाङ्गोऽभवत् ॥

—*Epigraphia Indica*, Vol. VII, p. 44.

Sāhasāṅka in this verse refers to (Chandragupta II) Vikramāditya. (See my article on it in *Ind. Hist. Quart.*, Vol. X, p. 48 ff.).

²⁵ See *Indian Antiquary*, Vol. XIX, p. 179 and *Epigraphia Indica*, Vol. IV, p. 311.

²⁶ The first date would correspond to Monday the 22nd June A.D. 1489, and the second to Sunday the 3rd March A.D. 1527.

the latest date of the Chedi era known from inscriptions is 966. Thereafter the Haihaya princes used Vikrama and Śaka years in dating their records.²⁷ There is thus not the least evidence in favour of Dr. Bhandarkar's view that Sāhasa-malla was a name of the Kalachuri or Chedi era.

A king named Sāhasamalla is indeed known from several coins with the legend Śrimat-Sāhasamalla. But as V. Smith²⁸ has shown he was a king of Ceylon and therefore could not have had anything to do with the Kalachuri era.

What, then, does *Sāhasamallāṅke* in the verse cited at the beginning of this note mean? Since no other explanation is satisfactory, the conjecture may be hazarded that the expression is intended to signify the year by the system of word-numerals. Sāhasa stands for four, for a verse from the *Nārada-smṛiti* (XII. 2) cited in the *Mitāksharā*²⁹ states that *sāhasas* or violent crimes were four in number. Malla means a wrestler, a match for and therefore conveys the sense of equality. Here it probably signifies an equal number, i.e., four in the present case. *Anka*, as is well-known, signifies nine.³⁰ These numerals are to be placed from right to left, i.e., as 944 by the rule *Añkāñāṁ vāmalo galih*. Thus Sāhasamallāṅke means 'in (the year) 944' and this we find is actually the year in which the record was put up.

²⁷ See Khalari Stone Inscription of Haribrahmadeva, *Epigraphia Indica*, Vol. II, pp. 229-30.

²⁸ V. Smith assigns the date 1200-1202 A.D. to him. See his *Catalogue of Coins in the Indian Museum*, Vol. I, p. 330.

²⁹ मनुष्यमारणं चौर्थं परदारभिर्मर्शनम् । पाहम्यमुभयं चेति साहसं स्याच्चतुर्भिर्भम् ॥ मिताक्षरा on याज्ञवल्क्यस्मृति, II, 72.

³⁰ See Bühler's *Indian Palaeography* (English Translation by Fleet, p. 85).

BHṚNGADŪTAM.

Introduction.

THE *Bhṛngadūta*, published for the first time here, was brought to the notice of the scholars by me in the Patna Session (1931) of the All-India Oriental Conference. The publication was withheld so far, because it was hoped that other manuscripts of the work might be discovered and made available for use in preparing a press-copy. But it appears that there is not much likelihood of getting further information about the work, for Mr. E. P. Radhakrishnan of Madras, writing in 1936 on the recently discovered works of the Dūta-literature¹ does not add *anything more*² about the work. As Mr. Radhakrishnan belongs to the office of the *Catalogus Catalogorum* (Madras)—where an enlarged and revised edition of that stupendous and monumental work by Dr. Aufrecht is being compiled—his knowledge of the MSS. material of Sanskrit works must, indeed, be up-to-date and comprehensive. But as even he has not been able to throw *further* light on the work, it is but desirable that the work should be published, without waiting any more for additional material.

On the importance and unique position of the *Dūtakāvyas* in Sanskrit literature, their characteristics, their historical, literary and geographical value, their origin, development and relation with Kālidāsa's *Meghadūta*, much has already been written.³ Here we confine ourselves to the work in hand. But before that, it would not be unnecessary to mention other works of the same or similar name, in order to show that our *Bhṛngadūta* is different from, and should not be confused with, them.⁴

(i) *Bhṛngasandesa* of Vāsudeva, a poet in the court of Ravivarman and Godavarman who ruled at Calicut. The work is mentioned in the descriptive *Catalogue of Sanskrit Manuscripts* in the Madras Oriental Library, Vol. XX, No. 11865 and in *J.R.A.S.*, 1884, p. 452 under the title *Bhramarasandesa*. The theme here is the sending of a message by a person to his wife

¹ See the *Journal of Oriental Research*, Madras (Vol. X, Part III, pp. 269–74, 1936). He adds a list of 29 *Dūtakāvyas* to about 50 such works already mentioned by C. Chakravarti. (See *Indian Historical Quarterly*, Vol. III, No. 2, pp. 273–97, 1927.)

² See foot-note No. 2 on page 272 (*J.O.R.M.*, Vol. X, Part III).

³ (i) See C. Chakravarti; (*ibid.*).

(ii) Hultzsch; Kālidāsa's *Meghadūta*, pages vi–ix (Preface).

(iii) Winternitz; *Geschichte der Indischen Litteratur* (Vol. III, pp. 105–09).

⁴ The first two works, mentioned below, are noticed by C. Chakravarti and the others by Radhakrishnan. See foot-note No. 1.

from whom he had been carried away, when sleeping, by a Yaksha. It is complete in 192 verses.

(ii) *Bhramaradūta* by Rudranyāya Vāchaspati, a great Nyāya Commentator. It is mentioned in 'Notices of Sanskrit Manuscripts' by H. P. Shastri (Vol. II, No. 153) and in 'A Catalogue of Sanskrit Manuscripts in the Library of His Highness the Mahārāja of Bikaner' by R. L. Mitra, p. 229. The theme is the sending of a message by Rāma from Mālyavant hill to Sītā in Laṅkā.

(iii) *Bṛngasandesa*. It is mentioned in the *Triennial Catalogue* of the Madras Manuscripts Library, No. 3395b. The name of the author is not known. The place to which the message is sent is Sivapura (Trichur) in the centre of the land of Jāmadagnya, i.e., Malabar. A traveller, away from his dear home, requests a bee to inform his beloved of his welfare and coming back soon.

(iv) *Bṛngadūta* by Gangānand Kavīndra. It is mentioned in the 'Report for the Search of Sanskrit Manuscripts (1895-1900)' by H. P. Shastri and *Catalogus Catalogorum*, Vol. III, p. 90a.⁵

The only known manuscript of the work, published here, is owned by Pandit Surajmal Chaturvedi of Mainpuri (U.P.). The manuscript is in a fairly good condition and written on thick paper. It is dated 1752 Vikrama Samvat = 1696 A.D.⁶

'सम्बत् १६९२ वर्षे कालगुण (? न) बदि अष्टम्यां रविवासरे ॥ शु ॥

It contains 19 leaves or 37 written pages, there being 9 or 10 lines and 3 or 4 verses in each page. In all, there are 126 verses—all in Mandākrāntā metre except the last. The manuscript preserves the complete text, except two stanzas (Nos. 77, 78) which are omitted. After the 76th stanza, we get directly the 79th stanza. Obviously, it is due to the scribe's inadvertance. The scribe's name is Rāmakṛṣṇa, resident of Sūkara-Kshetra.

अलेखि रामकृष्णन सूकरक्षेत्रवासिना ।

पुस्तकं मृगदूतस्य धर्मकामार्थसिद्धये ॥

(In the end)

He was not a careful scribe. At places, he makes no difference between ण and न, श and स, ज and य, and व and ष. Shortening and lengthening

⁵ Mr. Chakravarti in a personal letter informs me that in this work "a lover darker than the new cloud, weak and emaciated with anxiety for the object of his love, sends the black-bee as a messenger to the heroine."

⁶ According to the scheme of पूर्णिमान्त month, the given date corresponds to the 16th February 1696, Sunday. Prof. V. V. Mirashi has kindly verified the reference to वारा, तिथि, month and year and informs me after consulting Pillai's *Indian Ephemeris* that the references are correct.

of vowels against metre are also seen.⁷ Omission and substitution of letters have made it difficult to restore the original text in several cases.⁸ The verse (65) has been misnumbered as (56). Sometimes, consonants are reversed. But in spite of these shortcomings, it is not difficult to restore, in many cases, the original readings. In the present edition, such mistakes, as are obvious and about which there can be no two opinions, have been corrected and the mis-readings, in important cases, have been shown in the foot-notes; other inaccuracies have been allowed to remain in the text and conjectural readings, where possible, have been given in the foot-notes.

The colophon given in the end of the Manuscript is as follows :

इति श्रीशतावधान-कविकलितं भ्रमरश्च (? सं) देशं श(? स)मासम् ।

So it appears that the name of the work is *Bhramarasandesa* and its author *Satāvadhāna Kavi*. But as this name appears to be more or less a title, given to the poet for his capacity of concentrating his mind on one hundred topics simultaneously, we doubt if this is the proper name of the poet. The last verse of the work is as follows :

श्रीकृष्णदेव (? :) स्मरणाभिधानः
शतावधानः परमाभिधानम् ।
श्रीभृष्णदूतं श्रुतिसारभूतं
व्यधादतिप्रेमकथानुभूतम् ॥

This verse seems to suggest that the poet's name was *Kṛṣṇadeva*, though there is difficulty in accepting this suggestion, namely, that we have to make an irregular (*madhyama-padalopī*) samāsa here, 'श्री कृष्णदेव इति स्मरण(योग्यम्) अभिधानं नाम यस्य सः' or a व्यधिकरणबहुवीहि 'श्रीकृष्णदेवस्य स्मरणाभिधानं यस्य सः'. Otherwise the compound gives no meaning. Another and more plausible conjecture⁹ is to make a slight emendation and read the first line as, श्रीकृष्णदेवः स्मरणाभिधानः, though even this does not give a happy interpretation because of the unfamiliar compound "smaranābhidhānah". However, it can be reasonably suggested that the poet's name was *Satāvadhāna Śrikṛṣṇadeva*.¹⁰ Similarly, the colophon is misleading as regards the name of the work. It names the work as *Bhramarasandesa*, while the last stanza (quoted above) names it as *Bhringadūta*. The real name appears to be *Bhringadūta*, as is clear from the stanza of the scribe, quoted above.

⁷ Cf. the verse 41.

⁸ Cf. verses 68, 69, 85, 100.

⁹ Another suggestion is "श्रीकृष्णदेव(:) शरणाभिधानः". That is, his name was श्रीकृष्णदेव शरण (?).

¹⁰ The word *Śri* is, however, only honorific. Cf. the third line where the word *Śri* is used with the name of the work also.

Nothing definite can be said about the period when the author, Satāvadhāna Kṛṣṇadeva, flourished. At most, what we can say at present is that he cannot be later than 1696 A.D., the date of the Manuscript. The facts that the Manuscript was written in Sūkara-kṣetra (Soron)¹¹, that various details are given about Vrajabhūmi and lastly that the owner of the Manuscript claims the work to have been written by his ancestors go to indicate that the author may have belonged to the Western U.P.

For a detailed summary of the subject-matter of the work, its close imitation of Kālidāsa's *Meghadūta* and literary worth, enough has been said elsewhere.¹² It will suffice here to state the following in a summary form.

(i) A cursory study of the work would reveal that it is a close imitation of the *Meghadūta* which has greatly influenced its style, metre, arrangement and thought.

(ii) Of two important features wherein it differs from, and stands in marked contrast with the *Meghadūta*, the first is that the poet, being interested in describing the various scenes of Vrajabhūmi, does not send the bee-messenger to a far-off place. Hence, the work does not contain geographical and topographical information—a speciality of the *Meghadūta*.

(iii) The conception of love depicted in the work is not purely human, but divine. Here the lover is not a human figure, but is a divine spirit.¹³ Thus the love revealed here is not Vipralambha-śringāra, but the craving for the realization of *divine love*. In this respect, the work differs fundamentally from the *Meghadūta* and should occupy a high place in the Bhakti-literature of the Vaiṣṇavites.

(iv) Though an imitation, the work is not lacking in poetic merits. The work with its simple style and occasional poetic flashes of high order is worth reading by literary persons.¹⁴

The real credit of unearthing and bringing to light this work should go to the owner of the Manuscript, Pandit Surajmal Chaturvediji of Mainpuri (U.P.)—to whom I express my sense of gratitude.

Morris College, Nagpur.

S. P. CHATURVEDI.

¹¹ Soron, on the Ganges, is 27 miles North-East of Itah (a district in U.P.). See N. L. De, *The Geographical Dictionary*, p. 195.

¹² See My paper on this work in the *Proceedings and Transactions of the Sixth All-India Oriental Conference, Patna*, pp. 623-32.

¹³ Cf. verses 1, 89, 94, 122, 128.

¹⁴ See verses 31, 33, 51, 71, 82, 84, 91, 98-9, 109, 113-14, 120, 122, etc.

शतावधानकवि-श्रीकृष्णदेवविरचितं
भृङ्गदूतम्

॥ श्रीगणेशाय नमः ॥

(१)

पूर्णानन्दे परमपुरुषे पुण्डरीकायताक्षे
सर्वैः पुण्यै हपचित्वद्वेषमसिद्धाखिलार्था ।
काचिद्विषये प्रणयकलहृप्राप्तमानन्तरायां
प्रौढज्योत्तमां कथमपि निशां कल्पकल्पां निनाय ॥

(२)

प्रातः प्रोद्यहिनकरकरत्याजितास्याभजमुद्दा-
मध्यासीनं सरसविसिनीं सिन्धुवाराः सजन्तीम् ।
वामा भीनक्षणपटुना मञ्जुशुजारवेण
प्रत्याश्वास^१ मधुकरमसौ कश्चिदाशदपश्यत् ॥

(३)

निद्राभप्नादलसनयना दीनया बीक्ष्य हृष्ट्या
खेदादेनं कथमपि नतशूलता निश्चसन्ती ।
सद्यः स्तैरं निजमुखसुधासेवके वासुदेवे
भावं प्राप्ता पुलककलिकाराजिराजस्कपोला ॥

(४)

मुक्ता मुक्ताफलसमरुचीन् मुन्दरी बाष्पविन्दून्
कृत्वा कण्ठं कथमपि मिलत्पश्चमं कोकिलेव ।
सन्देश्यन्ती सपदि हरये स्तां दशां प्रेयसे तां
मन्दं मन्दं मधुकरमसौ प्राजलिस्तं जगाद् ॥

¹ ?; (= प्रत्याश्वासयन्तम्, पचाश्च)

Abbreviations :

इ. झ. — इत्तलिखित-पुस्तकम् ।

सम्ब० — सम्भवेदम् पाठः ।

(५)

भ्रातः कश्चिद्^१ भ्रमर भवते स्वागतं पश्यन्धो
 माभुद्भूतिस्तव मधु घनं भुजयतां तावद्बजे ।
 कन्दपेस्य त्वर्मसि सचिवः कार्यविज्ञापनायै
 माकाङ्क्षिऽयं चिरमिहुजनस्त्वामुपास्ते नमस्ते ॥

(६)

यद्वा विद्वान्सदयहृदयो दुःखितायां मयि त्वं
 पश्यन्छाये सुखमसि सखे दत्तचित्तावधानः ।
 एनां प्रीत्या निशमय निशामङ्कुचत्पहृजान्त-
 स्ताम्यत्कान्ताविरहगुरुता भिज्ञ विज्ञापनां मे ॥

(७)

एतत्तावन्मधुकर परिज्ञातमेव स्फुटं ते
 यद्वोविन्दः श्रुतिमधुधरामृग्यपादारविन्दः ।
 ब्रह्मादीनामपि दिविषदा दुर्लभं बलवीभ्यो
 दते स्वात्मव्यतिकरसुखं किङ्करीभ्यः कृपालुः ॥

(८)

स श्रीकान्तः किमपि कुपितः सापराधे जनेस्मि-
 न्मस्तसन्देशान्मधुप भवता माधवोद्य प्रसादः ।
 तथायास्त्वं दयितसुमनोवृन्द वृन्दावनान्तं
 यस्मिन्गोपैर्विहरति समं बलभो बलवीनाम् ॥

(९)

मार्गः श्लाघ्यो मधुकर मया श्रुयतां गीयमानः
 पुष्पारामैरविरलमधुस्यान्दभिः सान्द्रगर्थैः ।
 देशादस्मात्कुमितलताकान्त गन्तामि थेन
 कीडास्थानं मुनिजनमनोमाननीयं मुरारेः ॥

¹ ? कर्मचदू (सम्भ०)

(१०)

अस्मादस्मत्सदनसविधाश्याहि नन्दस्य गेहं
प्रत्यासज्जोपवनपवनानीतमाकन्दगन्धम् ।
गायन्तीनां कुबलयदशां कृष्णमाकर्णयन्ती
यत्रोद्भीतं निवसति सखी^१ नित्यमोदा यशोदा ॥

(११)

तस्योद्याने विव मधुरसं कृष्णसमवर्द्धितानां
नित्यामोदक्षुरितहरितां बालनीपदुमाणाम् ।
यन्मूलेषु व्रजयुवतयो हेमकुम्भैः सलीलं
मूर्ते प्रेमदुममिव^२ मुहुस्तोयमावर्जयन्ति ॥

(१२)

तस्यवान्तर्मरकतशिलापृष्ठपर्यङ्करम्यं
कालस्कन्धावलिवलयितं^३ मालतीगुल्मगेहम् ।
सूते स्वैरं यदपि दिवसे वासुवेवाभिमार-
व्यापारैकव्यसनमसक्षेपकन्याजनस्य ॥

(१३)

तत्र स्थित्वा परिचिन्तु सखे दत्तपुष्पोपहरे
कीर्णनेकलजि मृगमदालककिर्मीरतत्वे ।
राधावन्धोरविकविकसज्जैकगन्धाभिरामं
कामक्रीडापरिमलगुणं गन्धवाहोपनीतम् ॥

(१४)

गच्छेहस्तद्वत् विकसत्केशशरद्वन्द्वमारा-
भन्दागारादगरुद्धरभेस्तोरणं इशनीयम् ।
लीलाखेलम्मुरभिदुदरोद्धखलव्यस्तमूलै
चित्रं यत्र द्रुतमगमतामर्जुनौ निर्जरत्वम् ॥

^१ (ह. पु.) ; सखे (सम्भ०), यशोदायाः सखीत्वेनोक्तस्यानीचित्यात् ।

^२ हुत० (सम्भ०)

^३ कालस्कन्दा० (= तमालवृक्ष) (सम्भ०)

(१५)

सायं सायं सह सहचरैः सौरभेयीसमूहा-
नन्दायान्तं सुतमिसुदा यथा देवी यशोदा ।
रक्षादीपावलिबलिकरा रक्षिताशेषलोकं
प्रत्युत्थाति प्रसुतहृदया प्रेस्नुताम्यां स्तनाभ्याम् ॥

(१६)

रम्याभोगामनुसर ततो राजवीथीमजस्तं
कल्याणानि क्रमुकदलीकेतनैः सूचयन्तीम् ।
गोविन्दस्य भ्रमरकधिया कुर्वतीः पक्षपातान्
अभ्यालिङ्गमनिभृतगतीरङ्गना^१ दृष्टभक्तीः ॥

(१७)

लाजैरुद्यज्ञखश्चिशुभैरुत्परलैः साक्षिपातः
कुन्दैर्मन्दस्मितपरिचितैर्यथा गोपालकन्याः ।
बाहावल्लापुलकमिलितैरङ्गुरैश्च प्रकामं
काले काले कमलनयनं कौतुकादाकिरन्ति^२ ॥

(१८)

भूयोभूयः स्वलितचरणात्थ रुपुष्योपहारे
दत्तोद्देगास्तनमृगमदामोद्दुर्धैर्द्विरेकैः ।
चम्पावलया शमिततमसः कमिपताङ्गयो निशाधि
कान्तस्थानं कथमपि यतो यान्ति रन्तुं रमण्यः ॥

(१९)

हैमान्कुम्भानुरसिजभरैर्दर्पणालि कपेल
सृज्जान्पुष्पप्रकरमुखरान्पादभूषाविनाईः ।
तन्त्रीनादान्मृशुभिरुदितैः कुरुक्षमान्यङ्गकान्त्या
कर्पूरस्त्र स्मितरचमया यथा नार्यो हसन्ति ॥

^१ ङ्गनिभृत० (सम्भ०)^२ किरन्ती (ह. पु.)^३ दत्तोद्देगास्तन० (ह. पु.); दत्तोद्देगाः स्तन० (सम्भ०)

(२०)

पाणिस्पर्शान्मुहुरपयता भिन्दता नीविमुद्रां
याता सद्यः कुचपरिचयं कुम्बता गण्डमालाः ।
जिह्वाकेऽन्त्युतिबलयिना विभ्रता कृष्णभावं
यत्र कीर्त्ता कुबलयदशः कुर्वते कन्दुकेन ॥

(२१)

तत्र स्त्रीणां प्रणिहितदशां सौधवातायनेषु
स्वार्दं स्वादं वदनकमलामोदमौत्सुक्यभाजः ।
प्रत्युन्मीलद्रग्नतटिनीवालहेमाद्विमाला-
सन्देहस्ते मधुप भविता बन्धुकार्यन्तरायः ॥

(२२)

सन्तप्तायां मयि कृष्णया याहि तर्णं तथापि
द्वारं नानामणिमयलसलोरणं गोकुलस्य ।
सान्द्रादश्वत्सरससुमनः सौरभेणाभिरामं
पाकाद्रज्यतफलवितनिना बालपूरीयुगेन ॥

(२३)

सिन्दूराद्रें शिरसि दधती शोखरं मौक्किकानां
सन्ध्यारागाकुपनतमिव उपेतिष्ठां चक्रवालम् ।
वन्या नित्यं ब्रजयुथतिभैर्जयन्ती दधाना
बन्धूकानां यदजिरगता भाति हेरम्बमूर्तिः ॥

(२४)

कंसेनाग्रे गुरुतरशिळापादसङ्कृतीय-¹
क्षिप्तापि यामभजदजिता या यशोदाकुमारी ।
अर्चामस्याः समुपरचितामन्त्र भक्तवाभिनन्देः
स्तुत्या सा हि त्रिदशामुनिभिः शक्तिरात्मा मुरारेः ॥

¹ ? (इ. पु.)

(२५)

तदप्राप्तादे सुरजपटलीमार्जनापूर्वरङ्गं
 सङ्गीतब्देभिनयकलाभङ्गतं नरकीनाम् ।
 तन्त्रीनादानुगमनिलयं तथा तालप्रदानं
 कुर्वन्वाण्या किल मधुरया त्वं कृतार्थत्वमेहि ॥

(२६)

द्विवेशेषाः कुवलयधियां पाणिलीलाप्रवाल-^१
 श्रेणीशङ्कां करजहचयोऽभरीपुज्जरागम् ।
 आभोगाथ स्तनकलशयोर्लम्बिनी^२ कुण्डलाशा-
 माघास्यन्ते तव सललितेष्वङ्गहरेषु तामाम् ॥

(२७)

कर्णे लीलाकुवलयरसं कौतुकात्पातुकामं
 त्वज्जेतश्चद्वसर सहसा नाभजद्युक्त^३ न वा स्यात् ।
 स्वेदार्प्लष्टप्रतनुवसनव्यजितान्तश्छवीनां^४
 तामामुद्यज्जवनवत्नूविभ्रमासु प्रभासु ॥

(२८)

आसां माभूरभिनयसुखे^५ गीयमानधुवाणां
 वामाक्षीणां वदनकमलामोदलोभात्प्रतीपः ।
 एकाग्राणां रसमयतया सारवस्तुप्रयोगे
 यः प्रत्यूहं जनयति जनः कस्तोऽन्यो जघन्यः ॥

^१ ? (ह. पु.) ; कुवलयधियं पाणिलीलाः प्रवा. (सम्भ०)

^२ ?

^३ ? (ह. पु.)

^४ ? (ह. पु.) ; व्यजितान्तश्छवीनां. (सम्भ०)

^५ ? तरु (ह. पु.)

^६ रतिनय. (ह. पु.)

(२९)

निर्विशेषं निरुपमरसं नृत्यमासां सुहृत्तं
पूर्वारब्धं पुनरपि सखे बन्धुकार्यं भजत्वा ।
अत्युत्कण्ठाकलित्मतयः कर्तुमर्थं परेषाः-
सुधन्द्रन्ति खक्षुखमनादत्य नित्यं महान्तः ॥

(३०)

पात्वा देवीसरसि सरसोद्गन्धिसौगन्धिकाना
मुच्चिद्राणां मधु वनरजः सङ्घशङ्खारिताङ्गः ।
यायाः खैरं मधुकरं ततो यामुनं तीर्थमार्गं
बद्धन्द्रायावलयमभितो^१ नोलनीपावलीभिः^२ ॥

(३१)

सेकालिग्रंथ^३ चिकुरनिकरं संयताग्रे दधानो
मुक्तं पथान्मृगमदरसामोदिकाश्मारलेपः ।
हस्तन्यस्तैः कनककलशैरब्जपत्रातपत्रैः
कालेन्द्रीयं नयति सलिलं यत्र कन्यानिकायः ॥

(३२)

स्थाने स्थाने कुसुमसुरभौ यत्र विश्रम्य तासा-
मासेवस्य वजमृगदशामन्युतासकिरम्यान्^४ ।
प्रेमज्ञिरधान् बहुविधपरीहासलीलानुविद्धान्
संलापार्थानविरलसुधास्यनिदनः सापंदशान् ॥

^१ वलयि (ह. पु.)

^२ नालनीयाव (ह. पु.)

^३ सेकालिग्रंथ (ह. पु.)

^४ रम्यात् (ह. पु.)

(३३)

स्नाहारश कचन जनयत्यारवं^१ मीनकेतो
रविमानामभिसर यदि दृष्टुकामोऽसि तासाम् ।
लोलापाङ्गं नयनयुगलं स्वेदकान्तौ कपोलौ
व्यस्तक्षामाश्रुति कुचयुगं स्वस्तनीबीजं नाभिम् ॥

(३४)

चूते चूते चुल्कितमधुक्षोतसि इलाध्यमानं^२
कुञ्जे कुञ्जे कलितकुमुमे कलयज्ञरागम् ।
वारं वारं वनमधुकरीदृष्टदमध्ये सरागं
गायं गायं समयसमयं कश्चिदथोत्सुकोसि^३ ॥

(३५)

आयान्तीनामलकपटलीमङ्गनानामपाङ्गा
दाकृन्वन्तो^४ ललितमलकं स्वेदविन्दूनिपवन्तः ।
ऊरस्तम्भादपि कुचतटादुत्खिपन्तो तुकूलं
नेष्यन्ति त्वां नियतमनिलास्तत्र यात्रानुकूलाः ॥

(३६)

मार्गस्थाने मलयमहता मन्दमान्दैलितामु
कीडालोलकणदलिवधूकिद्विमालिनीषु ।
माकन्दाना मधुप विहरन्मज्जरीषु प्रकामं
दोलाकेलीकलितमसकुहोइदं पूर्येणाः ॥

^१ जनयत्यारवं (सम्भ०)^२ इलाध्यमानं (सम्भ०)^३ कश्चिदायोत्सुकोसि (सम्भ०)^४ दाकृन्वन्तो (सम्भ०)

(३७)

तत्र स्वरं तरलितश्चातर्जनीसम्प्रयोगै-
रादैरन्तः कुसुमनयनैः पलबोष्ठप्रकम्भैः । ।
तुस्यप्रोतेरपि तव धियं क्षोभयिष्यन्ति मन्ये
भावैरेवं सुभग बहुभिर्बालवल्लारमण्थः ॥

(३८)

तासां फुलस्तबकवदनोदश्चितां साधुवारां
पर्यायेण^२ प्रणयचतुरः पातुमहस्युदाराम् ।
अत्यौत्सुक्यादभिनवरसानङ्गनानां विशेषा-
नन्तःश्लाघो^३ न तु भवति यस्त्यक्तमोगः स एव ॥

(३९)

मार्गेणैवं मधुकर लतामण्डलामण्डितेन
स्तोकं गत्वा मणिमयमहातोरणं प्रेक्षणीयम् ।
प्राकारेण प्रतुरकदलीपङ्किना भासमाने^४
दक्षयस्यारादसमसुषमं^५ धास वारदेवतायाः ॥

(४०)

सेवस्वतां सितकरकलाशेखरां श्रद्धधानो
विद्वचेतः कुमुदकलिकाकौमुदीमादिविशाम्^६ ।
अत्येनैव स्फुरितमतयो यत्प्रसादेन कुर्यु-
त्तिर्यश्चाऽपि त्वरितममृतस्यनिदनीः सूक्तिरेखाः ॥

^१ पक्षमबोष्ठ (ह. पु.)

^२ पर्यायेण (ह. पु.)

^३ नान्तःश्लाघा ननु० (ह. पु.)

^४ भासनीयं (ह. पु.)

^५ सुषमा (ह. पु.)

^६ विशाम् (ह. पु.)

(४१)

पादावस्याः परिचर शरत्पश्चरागौ सरागं
 तन्मर्जारद्रयमनुगतस्तादश्वेरेव नार्दः ।
 ध्रते चित्रं ध्वनिमिह महानीलहृत्पातशङ्क^१
 विस्पेराभिर्वितर निमेषं वाक्षितो बलवीभिः ॥

(४२)

पातुं शक्षया तथ भगवतीपादमूले तदानीं
 पर्यस्तानां परिमलकला पाटलाकुड्मलानाम् ।
 गोप्रे लम्फां गमनसमयलानिमेषा निमेषा-
 ज्ञेत्री शान्तिं नियतमनसां निल्यसौहित्यहेतुः ॥

(४३)

चिन्ता^२ मन्था सपदि वचसां सेवया देवतायाः
 सारोदारं विकसति पुरा सौम्य सारस्वतं यन् ।
 यस्तसम्पत्या भवति मधुरं विश्रुतं चिन्त्रमाशु
 व्याचक्षाणो शिरमवहितः श्रेष्ठ्यति श्रीनिवासः ॥

(४४)

तस्माद्रम्यं तथ मणिमयं धाम वैलाशरम्यं
 पुण्यालोकं पुराविजयिनः फुलपुष्पागखण्डम् ।
 धूपः कालागुरुपरिमलाद्वारशाली यदीयः
 पापप्रेणि हरति सपदि प्राणिनामागतानाम् ॥

(४५)

भक्त्या तस्मिन्भज भवभयध्वंसिनं भालनेत्रं
 मुक्त्वा लिङ्गं मुनिभिरनिशं मोदमानैरुपास्यम् ।
 दीप्त्या द्वाण्ड्या दलिततमसा दिवितानं त्रिहानं
 गौरीलीलाकलितविकसद्वामभागाभिरामम् ॥

^१ ? (ह. पु.)^२ ? (ह. पु.)^३ ? (ह. पु.)

(४६)

तस्यारामे तरुणबकुलामोदमासेदुषस्ते
नेदीयस्यास्तपनदुहितुः^१ शीकरानाकिरन्तः ।
चेतःप्रतिं चिरमभिमुखाः कल्पयिष्यन्ति मन्ये
पद्मध्रेणीपरिमलपरिस्थिन्दिनो गन्धवाहाः ॥

(४७)

तैः स्वच्छन्दं परिहृतग्रुह्लभवलीपराग-
स्तान्स्वासज्जाननुसर तस्मीलभासस्तमालान् ।
ये सान्द्रत्वं दथति दिवसेऽप्यन्धकारं सुजन्तो
निःसञ्चारा जलमुच इव स्वैरपीताम्बुभारात् ॥

४८)

नापं नित्यं प्रसवसुरभिं तेषु तु ह्यं भजेथा
वासोहारी वनजनयनो वारिलीलाचरस्य ।
यत्र स्थित्वा मुकुलितकरं याचमानस्य चित्रां
कुर्वन् केलीमरमत पुरा गोपकन्याजनस्य ॥

(४९)

यस्यादाय प्रसवमसकृत्केसरालीकरालं
कन्याः कर्णाभरणपद्मीं कौतुकादानयन्त्यः ।
तन्माधुर्यादुत सुररिपुस्पर्शपर्यायलाभा-
दुदोमाद्यानुपगतरुचो गण्डभागान्वहन्ति ॥

(५०)

पातुं तस्य प्रसवमदिरां स्थातराका^२लिकान्ते^३
भानोः कन्या स्वनयनसुधापानपात्री भवित्री ।
मग्राः कामं कथमपि कटीदघ्नीरेपि यस्याः
पारं गन्तुं भवजलनिधेः पारयन्त्यथ्रमेण ॥

¹ दमेयस्यास्तप० (ह. पु.)

² स्थातुराका० (सम्भ०)

³ ? ; (आकलिकान्ते = (आ)कलिकाप्रभागे ?)

4

(५१)

आनन्देन तुत इव हेरङ्गलावण्यपूरः
 कृष्णस्पश्चाज्ञत्र इव भुवो रोमराजीविलासः ।
 दानस्यन्दोदय इव कलिन्दाद्रिदन्तावलस्य
 स्मोताभारः सुभग्यसलिलः शोभते साधु यस्याः ॥

(५२)

आकाशन्तः पुलककलिकाशालिनीमूरसीमा-
 मारोहन्तस्त्रिवलिपदबीं नाभिमास्फालयन्तः ।
 आलङ्गन्तः कुचकलशकानङ्गनानां विहरे
 यत्कलोलाः किल सुरजितः कुर्वते दोविलासान् ॥

(५३)

अम्भोजास्याः¹ सरसहसितैराशयं व्यञ्जयन्त्यौ
 रागाकान्तं तरलिततिरक्षीनमीनाक्षिपाताः ।
 आसासानां² स्वदभिसरणं कण्टकाङ्क्षः प्रतीकै-
 यत्पद्मिन्यो दधति मधुरं कूजितं हंसकानाम् ॥

(५४)

वीचीवैतिर्विकिसितलताजालरन्ध्रप्रविष्टे-
 रम्भेबिन्दुप्रसरसरसैरात्मधारागृहश्रीः ।
 पुष्पासारच्छुरितसिकतापुजपर्यङ्करम्या
 यद्वानीरवततिवलयागारवाटी चकास्ति ॥

(५५)

कूले यस्याः कुसुमितलतागुच्छदत्तोपहारं
 गोपस्त्रीणां कुचपरिचितैः कुङ्कुमैराहिताङ्गम् ।
 आसेवन्ते चरणकमलन्यासमुद्रां³ सुरारे:
 साकं भृत्यैः शबरबनिताहृष्यः सानुरागाः ॥

¹ अम्भोजास्यः (ह. पु.)² ?³ मद्रौ० (सम्भौ०)

(५६)

सन्ध्याशङ्कामरुणजलज्जरन्धकारप्रतीतिं
नीलाम्भोर्जः शशिकरचयप्रत्ययं पुण्डरकैः ।
यान्तो यस्यां सह युवतिभिश्चकवाका रमन्ते
जालं बालातपसमतुलमेत्य सांगन्धिकानाम् ॥

(५७)

मेघश्यामा सरसकमलश्लिष्टकल्याणमूर्तिः
स्थोतोजन्मध्यसनविरणदेणुवल्लीसमेता ।
अन्तस्तापं निजपदजुषामाशु निर्वापयत्रीं
या सन्धर्ते युवतिमनसां वासुंदरप्रतीतिम् ॥

(५८)

तस्यां पश्यन्विहरसि पुरो नूनमिन्दिवराणां
बृन्दानि त्वं कमलमधुभिः कल्पमानेऽसवानि ।
संसरेरस्मिन्विकसति सुखं यत्सजातीयसङ्गा-
त्स्यावश्यं न खलु सदर्शं जन्यते कैथिदन्यैः ॥

(५९)

नैतद्योगाक्ष तव भविता तत्र यात्राविलम्बो
विस्मर्तेऽवस्तदपि न कृपाभाजनं ते जनोऽथम् ।
शक्यः सोङ्गुं नहि रतिपतेदाश्चुकारी¹ विकार-
स्त्वतप्रत्याशाशरणमधुना केवलं जीवितस्य ॥

(६०)

दर्शं दर्शं तदनु यमुनापात्रमुत्कुलपश्यं
गच्छोदीची दिशमभिमुखः कौतुकी नातिदूरम् ।
खेदन्त्यैर्दैपयिकविभवान्केसरेः सोपदेशा-
नभ्यामोदान्मुहुरनुभवज्ञासवानारविन्दान् ॥

¹ रशुकारी (सम्म०)

(६१)

तस्याः पश्य हृदमकलुषं यत्र नृत्यं व्यधत्त
 कान्त्वा भोगं कमलनयनो लीलया कालियस्य ।
 यस्मिन्नेतत्पदकिसलयन्यासतः प्रादुरासन्
 सान्द्रामोदं दधति च रसं दिव्यसौगन्धिकानि ॥

(६२)

बेलद्वीचिव्यतिकरभवे बिन्दुवृन्दे वितन्वन्
 बन्धुप्रीतिं कुवलयवने कूजित्तकानुमेयः ।
 तस्याः कुवलवमुगमदम्यासकन्यासल्लालं
 याहि स्वैरं कमलमुकुलव्याजवक्षोजलमः ॥

(६३)

तावद्वावी तव नयनयोहृतसवस्तत्समपि
 नित्यारूपे निविडिततटो नीलपुष्पैरशोकः ।
 वातानोर्तः सिक्तिलतलः^२ केतकीनां परागैः
 पन्था शृन्दावनभुजगतः पान्थसन्तापहारी ॥

(६४)

तेनातीत्य स्तिभितयमुग्नातीरभाजा वनानि^१
 द्रक्ष्यस्यमे तरुणलबलीतोरणं स्कृसनाथम्^३ ।
 कूजद्वृहीकुलवलयिनीकोविदारद्वयेन
 द्वारं चारुद्युति नवमधुस्यन्दिद शृन्दावनस्य ॥

^१ मुकुलं० (ह. पु.)^२ ('सिक्तिलतलः' इत्यर्थे)^३ वनानि (ह. पु.)^४ तोरणथंक सनाथम् (ह. पु.)

(६५)

तस्योत्कीर्ण^१ कपटशबर्दी चाहचाम्येयमूले
नत्वा गौरी सह मृगयुतानाटिना^२ शङ्खरेण ।
अन्तर्बाधीभवतर वनस्यायतामाह्वयेयु-
स्त्वामागन्तुं सपदि गणिका यत्र लोलैः प्रवालैः^३ ॥

(६६)

वातोदृतप्रसवजरजः केतनागेषु^४ चूत
प्रासादेषु प्रचलितलतापङ्किदोलाधिरुद्धाः ।
रज्यत्कण्ठः सुललितपदं यत्र लीलां मुरां-
रुद्रायन्ति स्फुटमधुमदा देवतास्तद्वनस्य ॥

(६७)

तिष्ठारिष्ठ कु पुनरधुना गम्यते कालिय त्वं
कृच्छान्मुक्तः कलय जलधि सिद्ध(क्ष)याः^५ रक्षितोऽसि ।
गोपास्तापं त्वजत गिरिणा वारितं वातवर्ष
कीरा: शैरोर्गिरमितिवदन्युसुका यत्सकाशे ॥

(६८)

यथारित्रैः^६ किशलयनयैः^७ पत्रिणश्चञ्जुलैः-
वीचावेलदलदलिकाकलिपत्तैर्यानपात्रैः^८ ।
वीतव्रातैः^९ परिणतिमां शर्करादाढिमानां
पक्षद्राक्षाकलरसनदीपारमासादयन्ति^{१०} ॥

^१ तस्योत्कीर्ण (ह. पु.)

^२ मृगयुतानाटिना० (सम्भ०)

^३ पश्चष्टितमोऽयं श्लोको लेखकप्रमादान् षट्प्रश्नाशतम(५६)त्वेनाङ्कितोऽस्ति हस्तलिखितपुस्तके ।

^४ ?

^५ (ह. पु.) (सिद्धा = नागपत्नी)

^६ यथारित्रैः (ह. पु.)

^७ किशलयनयैः = नवकिसलयैः (?)

^८ ? ; वेलसरसलतिकाकलिपत्तैः पानपात्रैः । (सम्भ०)

^९ ?

^{१०} सादयन्तः (ह. पु.)

(६९)

यत्रागाधे मधुजलनिधौ मज्जतो षट्पदाना-
मादीभावादलसगुह्तामशमाणां विहर्तुम् ।
दत्सालस्वाः सपदि विपदि स्वानुजानवतानां^१
वाता यौतानिव सुंमनसो^२ दक्षिणाः प्रक्षिपन्ति ॥

(७०)

आलङ्घयालं कमलनिलयादूत मे^३ मुख मुख
द्रासोत्कम्पिष्ठ स्तनयुगमिदं पूतना नाहमस्मि ।
दासी तेहं विरम करजान्दातुमन्यः स दैत्यो
यत्र छीणामिति रतिगिरः शारिकाः शीलयन्ति ॥

(७१)

गुजन्मच्चजुघमरवलयाः स्मरगुच्छानमोष-^४
न्मध्वामोदाः प्रचुरकलिकापुञ्जरेमाश्रम्याः ।
आरोहन्त्यस्तहणविटपानच्युतालिङ्गिनीनां
वल्यो यत्र ब्रजमृगदशां विभ्रमान्विभ्रतीष ॥

(७२)

कपूरत्वक्षुद्रपरिकरं श्रोटिभिः पादयन्त्यो^५
बाला^६त्कालागुहविटपिनां पल्लवान्वेल्यन्तः ।
कङ्कालैलाकलविद्लनव्याकुलाः कोटराणि
श्रीखण्डानां सह युवर्तिभिर्यच्छकुन्ता^७ विशन्ति ॥

^१ ?^२ ?^३ ये (ह. पु.)^४ ननोयन्मध्यां (सम्भ०)^५ पाटयन्तो० (सम्भ०)^६ बालान् (सम्भ०)^७ यत्र कुन्ता० (ह. पु.)

(७३)

कण्ठेरीषद्विलितकलिकासाधु^१ सेवाकषायै-
स्त्वूजन्ति श्रवणमधुरं पश्चमेन स्वरेण ।
यत्रादारान्मुरविजयिनो^२ वेणुनादप्रकारा-
न्संशिष्टन्ते मुहुरविकलं कोकिलानां कुलानि ॥

(७४)

गोत्रं तत्र स्फुटतरसुपासाय गोवर्धनाख्यं
शृङ्गात्सङ्गं स्वर्विलितजलमुगजाललीलावतंसम् ।
आसंसारादुपचयवतां पुण्यकल्पद्रुमाणा-
मक्षुद्राणामनुभवं परीपाकमेकान्तरुच्यम् ॥

(७५)

लीलानीलाम्बुदजलमिलतकेतकीसूनभासं^३
विभ्राणाभिः कृतपरिकरो गोपिकानेत्रभाभिः ।
सान्द्रारण्यस्तबकसुभगो दोषि कृष्णस्य योऽभू-
न्मुक्ताच्छत्रं मरकतमहादण्डमाधुर्यधुर्ये ॥

(७६)

स्वरं क्षारस्तुतिभिरभितो भेष्टलां क्षालयन्त्यः
स्वच्छागारा:^४ स्फुटघनतरारम्भगम्भीरघोषाः ।
मन्थानादिं लहरय इव क्षीरसिन्धोरसंख्या-
श्वकम्भ्यन्ते यदुकुलमणेर्यं समाकम्य गावः ॥

^१ कास्त्राद (सम्भ०)

^२ विजयिना (ह. पु.)

^३ भासा (ह. पु.)

^४ स्वच्छागारा (ह. पु.)

(७९)

रत्नालोकैरपहुततमोमण्डलानि^१ प्रसूतैः^२
 कृष्णकीडाशयनरचनान्यात्पुष्पासवानि ।
 उद्यद्रागाः सह मुरजिता निविशन्ति प्रकामं
 यस्याविद्य वजयुवतयः कन्दरामन्दराणि ॥

(८०)

मुक्ताजालं परिणतमहावशकाण्डप्रसूतं
 पाकस्तामलकपटलीशङ्क्याः^३ खण्डयन्तः ।
 चम्बलम्यामुकुलहचिभिथञ्जुभिः कीरशावाः
 भिद्वल्लीणां हसितमसकृथयत्र सम्पादयन्ति ॥

(८१)

धातुच्छेदन्धुरितशिरसं भासमानोरुकुञ्जं
 कक्षालक्ष्मीङ्गतमुभयतो हेमकूटावलीभिः ।
 सिन्धुस्यन्दानगुरुसुरभीन्दानकल्पान्दधालं
 यं सेवन्ते कुलपतिभिव स्वैरमाशागजेन्द्राः ॥

(८२)

उद्यद्राघैर्गलितकवलैरुन्मुखैस्तर्घकर्णैः
 रेणीयूथैरचलतनुभिः ध्रूयमाणं समन्तात् ।
 कुञ्जे कुञ्जे कृतवसातिभिः कामलं किञ्चरीभि-
 स्तन्त्रीतालध्वनिसहचरं तायते यत्र गानम्^४ ॥

^१ द्वौ स्त्रोक्तौ (७७, ७८) न लभ्यते ।

^२ प्रसूतैः (ह. पु.)

^३ पलटी (ह. पु.)

^४ गानम् (ह. पु.)

(४३)

तस्यां कस्यां तटभुवि समाहत्य तुङ्गं नगाद्रं
क्रीडाभूमिं कलयसि पुरो गोपिकानायकस्य ।
काले काले नयनविषयीकर्तुमाशासते या-
माध्मारामाः परमसुनयः पश्चगर्भादयोऽपि ॥

(४४)

यस्यां वल्लयः कुसुमरजसा तन्वते रङ्गवल्ली
फुलाः पुष्पप्रकरमसकृत्पादपाः कल्पयन्ति ।
सेकं सूते मलयपवनः शीकैर्मीकरन्दै-
थबद्धागाः शुक्रयुवतयः स्वागतं व्याहरन्ति ॥

(४५)

चातुर्विध्यं पदविरचितं साषु संदर्शयन्त्यः
सङ्किन्नाणाः¹ कृतरुचिचतुर्भव्यमूधः² स्वरूपम् ।
व्यक्तोष्माणः³ कलावेकसितां तस्य घोषाभिरामं
गोरुपेण स्वयमकृतका यत्र गावश्वरन्ति ॥

(४६)

शब्दायन्ते समदगतयः शाहुरा⁴ यत्र धीरं
वसाः स्तन्यस्तवकितमुखाः स्वैरमुत्पुच्छयन्ते ।
आहूयन्ते मुहुरनुगिरं धेनवो नामधैयैः
स्तूयन्ते च श्रुतिमुखकराः क्षीरधारानिनादाः ॥

¹ ?

² ?

³ ?

⁴ शार्करा० (ह. पु.)

(८७)

कान्ति धते सखि तनुलतालभृष्णागुहस्ते
 मुख्यास्यं मदवति न ते माधवाख्यादरागः ।
 सज्जाताङ्कौ तरुणि तरलेनाच्युतेन स्तनौ ते
 सुव्यक्ता ते सुतनु हरिणा चित्रिता गण्डपाली ॥

(८८)

इत्याकूर्तं व्यतिकरलसच्चिद्रसंलापशीला
 लीलावत्यो ललितललितं यत्र निष्यं रमन्ते ।
 सन्तन्वनाः स्तिमितकरणैः सद्ब्रिगाशंसनीयं
 कृष्णाकरे महसि परमे भावमन्तर्बहिष्ठ ॥

(८९)

दृष्टव्यास्ते न खलु सुदशो लोकसामान्यमेताः
 प्रागृद्घूताः सह कमलया पाथसि क्षीरसमधोः ।
 नीताः समप्रत्यमरपतिना^१ जन्म नन्दस्य धोषे
 सेवां कर्तुं किल भवतमथन्दिकामच्युतस्य ॥

(९०)

तामासाद्य क्वचन कलिकाशालिनीं बालबली
 मध्यासीनः कुरु मधुकरस्थैर्येसेवां^२ मुहूर्तम् ।
 विष्वक्रसान्द्रं विकसदतसीपुष्पपुजाभिरामं
 वामग्निग्रंथं नयनपदवीं तावदेष्यत्ववश्यम् ॥

(९१)

यत्संसारक्षमिविहतये नीलजीमूतजाले
 निःसङ्गानां निजपदविदे सिद्धनेत्राजनं यत् ।
 यत्सान्दर्यं जनयितुमुपादानभिन्दीवरणां
 स्नातः शीतं यदमृतमपां बलवीनां विहर्तुम् ॥

^१ संपत्परपतिना (ह. पु.)^२ शोकं० (ह. पु.)

(९२)

गोपालार्तु प्रथितपरमानन्दरोचिष्णुरूपाः
प्रेमाबन्धस्तिमितमतयः प्रेयसि श्रीनिवासे ।
अंशाकाराः फलिततमसामादिमानां^१ मुनीनां
सङ्कीडन्ते सदशवयसस्तत्र चित्रैविहारैः ॥

(९३)

यस्तान्मध्ये विलभति युवा गोकुलाम्भेविधरनं
विस्तीर्णोरःस्थलकृतरुचि वैजयन्ती दधानः ।
पित्त्वापीडः पृथुभुजयुगः पीतकौशेयवासाः
कम्बुधीवः कमलनयनः कान्तिसीमन्तरेखा^२ ॥

(९४)

स प्रेयान्मे भवनवसुधां^३ नेत्रयोरिन्द्रियम्बं^४
चिन्ताम्भोधेः फलमविकलं पुण्यकल्पद्रुमस्य ।
किं व्यापारैर्बहुभिरसवो बुद्धिरात्मा यदन्यत्
सर्वस्वं वा तदस्तिलमसां किञ्च लोकत्रयस्य ॥

(९५)

काले तस्मिन्स तव भविता नूनमालोकमागें
माहेयीनां मुदितमनसां दौहने कारयित्वा ।
वत्सानां वा कुलमनुकलं वल्युतां वल्यु पश्यन
कुर्वमुक्षां गुरुतरककुत्^५ कूटकण्ठयनं वा ॥

^१ मादिनानां० (ह. पु.)

^२ कान्तिसीमन्तरेखः (सम्भ०)

^३ नवनवसुधां० (सम्भ०)

^४ रिन्द्रियम्बम् (ह. पु.)

^५ ककुप० (ह. पु.)

(९६)

सन्देहं वा सुहुरुगिरं चारयज्ञचिकीनां
 क्रमकीडातिथिषु सरितो शाङ्कलासु^१ स्थलीषु^२ ।
 शताराग्रैः अवणसुभग्नैः साषु विश्रामयित्वा^३
 सानन्दच्छायाततिषु परितो रौहिणानां तलेषु ॥

(९७)

उजिद्राणां बनसुमनसामुच्चयं वा वितन्वन्
 सम्प्राप्ताभिः सह युवर्तिभिः संविधातुं सपर्याम् ।
 भूषाशिलैस्तदुपरचितैर्भूषणं भूषणाना
 मात्मानं वा बनचरहशी दर्शयन्कर्षणाय ॥

(९८)

निर्णेकतुं वा वदनमहता नेत्रनीलोत्पलानि
 कीडन्तीनां तरलसुमनःकेसरब्याकुलानि ।
 चुम्बज्ञासां कियदिव समाप्ताय सीत्कुर्वतीनां
 विद्वोष्टीनामलस चालितशूलतान्याननानि ॥

(९९)

विन्यस्तोयं किसलयरसस्तावकीनो न तावत्
 सूते रागं सुभगमयेर कल्पनीयस्ततोऽन्यः ।
 इत्यालापैः कपटपदुभिः सुख्खां विश्वितायाः
 कस्याधिद्वा दधदतिनवं चुम्बनैरोष्टरागम् ॥

(१००)

अथन्यासां कुचकलशयोः कुह्कमन्यासमकृग्या
 सुग्रधाङ्गीनां सुकुलितदशां मोहनस्पर्शयोगात् ।
 निष्ठन्दानां निजनखशिललिङ्गनीभिर्लिङ्गित्वा
 विश्रामः पश्चात्कुरमकरिकाश्चन्तयन्सुप्रशस्ता^४ ॥

^१ शाङ्कलासु (सम्भ०)^२ स्थलीत् (इ. पु.)^३ विश्रामयन्वा (= विश्रामं कुर्वन्वा) — (सम्भ०)^४ न्तयन्मप्रशस्ता: (इ. पु.)

(१०१)

अन्यस्याक्षं ब्रततिवलये पुष्पकेलिग्रवासा^१
दारीनाया: सदयमभितः पाणिना कोमलेन ।
दूर्लक्षकरक्षतिकृतरुजं पादमादाय पश्यन्
आतन्वन्धा तहतरत^२ सम्बोधितानि ॥

(१०२)

कासारे वा करिवर इव कीडितुं सङ्गतानां
सुश्रोणीनां विजितकरिणविश्रमाणां वधूनाम् ।
संस्कुर्वीणः स्वकरमुकुलोदीरितैः सीकरौचै
मुक्तासूर्यैरिव गुरुतरान्वलगु^३वशोजकुम्भान् ॥

(१०३)

गायन्तीनां करतलपुटीदत्ततालप्रयोगे
वामाक्षीणां सदसि मृदुना विशिकानिःखेन ।
सङ्गीतं वा सरस^४मसकृत्सानुरागाङ्गहरैः
काश्थित्काञ्चीमुखरजघनाः कारथन्नोपकन्याः ॥

(१०४)

विश्रान्तो वा कुसुमशयने सख्युरङ्गोपधायी
हृष्यद्वोपीकरकिसलयन्यस्तपादारविन्दः ।
अग्रे शृण्वत् विरचितपदं गीयमानं स्वकीयं
बालकीडारणितमुदयत्कौतुकं यामिकाभिः^५ ॥

^१ प्रयासा० (सम्भ०)

^२ ?

^३ न्वलिकशोज० (इ. पु.)

^४ सदसमसकृत् (इ. पु.)

^५ याद(अ) काभिः (इ. पु.)

(१०५)

ज्योत्स्नाग्नैर्विसगुणमयैश्चामरैर्ज्यमानः
कुपशत्रः शिरसि मधुरं पद्मसम्बर्तिकाभिः ।
दर्श दर्श दयिततमया राधया दत्तहस्तः
शंलद्रोणीरलसनिहितैरह्यन्वा पदाङ्गजैः ॥

(१०६)

तत्सौन्दर्यानुभवनिविष्णानन्दनिध्यन्दगोपी-
गोपोपालावलिवलयिते बालमन्दारमूले ।
स्थित्वा लीलाविरचितलसमझलां न^१ त्रिभङ्गी
विन्यासो^२ विहितमधुरे बादयन्वंशनालम् ॥

(१०७)

एवं प्रायैः सरसचरितैरहमानं विदित्वा
साधीयासं समयमपि च स्वार्थसम्पादनाय ।
गोपीनाथं कुसुमितलतागुच्छकेलिच्छलेन
प्रत्यासज्जः सविनयमिति प्राज्ञ विज्ञापयनम् ॥

(१०८)

स्वामिः^३गोपीरमण कहणासागरानन्तशक्ते
लक्ष्मीकान्त त्रिभुवनयुरो गोकुलप्राणनाथ ।
युष्मत्यादस्तुति^४परिचितैरसुखं पद्मखण्डे-
र्मानस्थानं कुरु मधुकरं मामपाङ्गक्षितेन ॥

(१०९)

आकर्ष्यैवं तब गिरमसौ लीलयिष्यत्यवश्यं
लीलारित्तसदयमधुरापाङ्गरेखामयूरैः ।
ज्योत्स्नाजालैरिव ध्वलगन् जान्हवीयैरिवोष्टै
स्त्वामासिम्बजमृतलहरीफेनपुजौरिवाजन् ॥

¹ ?² विन्यस्यैवं मधुरमधुरं० (सम्भ०)³ स्वामि० (ह. पु.)⁴ स्पादध्वतिविरचितै० (ह. पु.)

(११०)

वाणीमेनां पुनरपि वदेवासुदेवं तदानीं
वन्दारुणामभिमतफलाद्वासये पारिजातम् ।
तन्माधुर्योमृतरसमहोदन्वदुक्षोलमाला-
मज्जित्ते महति महिलामण्डलेऽपि प्रकामम् ॥

(१११)

या ते दासी रहसि हसितुं गोपिता गोपिगोत्रा^१
वात्मात्सेन^२ त्वनुपगमव्यापदः पात्रमासीत् ।
सेवेदानीं सुभगतिलक स्वामवस्थां वराकीं
तापोत्तसां तव कथयितुं दृतकं प्राहिणोन्माम् ॥

(११२)

जयोत्सा वह्नि किशलयमयं तत्प्रमङ्गारकूर्दं
हारो भारः कुवलयदलश्रेणयः कुरबाणाः ।
हाला हालाहलविषरसो मूर्च्छनं बलकीनां
मूर्ढामन्त्रस्तव हि विरहे साम्प्रते देव तस्याः ॥

(११३)

शोणाब्जानां ततिषु चरणाकारमिन्दीवरेषु^३
च्छायामाङ्गीमधरसुषमां^४ बन्धुजीवावलीषु ।
नैत्रालोकश्रियमपि^५ च ते पुण्डरीकेषु बाला
निध्यायन्ती कथमपि बलाज्जीवितं सा विभर्ति ॥

^१ ?

^२ माससर्येण० (सम्भ०)

^३ कारभिःन्दीवरेषु (ह. पु.)

^४ अधरसुदर्शां (ह. पु.)

^५ त्रैलोक्यश्रियं० (ह. पु.)

(११४)

स्वप्रे तस्याः किमपि कथयज्ञेव कर्णे कपोलं
 चुम्बन् लोलाकमलरजसा दूषिताक्ष^१स्वमासीः ।
 नेत्रे भूयस्त्व सचकितं फूलतैः^२ शोभयन्ती
 तदद्वेष्टी करकिसलवं धुन्वती सा विवुदा ॥

(११५)

सङ्कल्पानामविरलतया सञ्जिकृष्टस्य मिथ्या
 सा तन्वन्ती तव चरणयोः सानुरागं स्मरन्ती ।
 स्वामि^३स्विम्नसविपदि जने सम्प्रसीदति मुग्धा
 सञ्जल्यन्ती जनयति दशः साक्षुलेखाः सखीनाम् ॥

(११६)

कम्पस्वेदप्रभृतिभिरसौ विकियाभिर्न शक्या
 कर्तुं चित्ते तव तनुरिति प्रत्ययं प्राप्य बाला ।
 क्लिरधे चित्ते मदनगुरुणा विक्षिता मीलिताक्षी
 रागेण त्वां लिखति रसतामागतेनैव नित्यम् ॥

(११७)

एवं देव त्वयि विरचितध्यानसन्तानयोगा
 कल्पायामं नयति दिवसं कोमलाङ्गी कथचित् ।
 कन्दर्पस्तु प्रथयतितरां तद्विघ्नोगापराध-
 प्रायश्चित्तं कुसुमविशिखैस्तापयज्ञमस्याः ॥

(११८)

सन्तापानां सपदि शमनीं सन्ततानन्ददात्रीं
 साशासाना तव चरणयोरर्हणीयां सपर्याम् ।
 मीलिन्यस्ताजलिकिसलया मद्रिरा माधव त्वां
 वन्दित्वा सा वनजनयना वर्कि विहसिमेनाम् ॥

^१ दूषितादस्व० (ह. पु.)^२ फूलतै० (ह. पु.)^३ स्वास्मिन्न० (ह. पु.)

(११९)

नित्यं चित्ते निवससि बहिर्भासि भावैरनंके-
नों तद्वस्तु कचन घटते यत्र न त्वद्विलासः ।
आत्मप्राप्तौ तदपि खलु मे कृष्ण^१ पुण्णासि तृष्णा०
सेयं माया तत्र विजयते मोहिनी देहभाजाम् ॥

(१२०)

लज्जा लूना कुलमगणितं लङ्घिता मानसुदा
भमं शालं भयमपहृतं धिक्कृतो धर्मसेतुः ।
यद्यद्दृष्टं प्रियमिति भया तत्तदत्याजि सर्वं
त्वामैकं शरणमधुना यामि निर्वाणदेतुम् ॥

(१२१)

कामं कल्पद्रुम इव भवानाश्रितानां जनानां
कामा नैके^२ कलतु मम तु प्रार्थनेयं निसर्गात् ।
अश्रान्तं ते चरणमरुणाम्भोजसौभाग्यचौरं
नित्यासङ्गे हृदि पुलकिते निर्भरं धारयेयम् ॥

(१२२)

दूरे तावत्स तत्र महिमा यत्र वेदान्तवाचो
मन्दायन्ते प्रथिततपसां योगभाजां धियथ ।
एतावन्मे कुतकमतसीसूनभासि त्वदङ्गे
कुर्यां नित्यं विषयविरता वाञ्छनःकायवृत्तीः ॥

^१ कृष्ण (इ. पु.)

^२ कामानेकः (इ. पु.)

(१२३)

तत्कारुण्यं कुरु मयि कृपावास यथस्ति मेऽङ्गः
 स क्षन्तव्यो ननु वपुरिदं विश्वमेव त्वदीयम् ।
 यथात्मैव कल्पन जनयेदुक्तमं तत्प्रसर्य
 स्वस्मिन्सत्यं भवति वचसां विर्त्तरः किं नमस्ते ॥

(१२४)

इत्युक्तोयं नियतमुदयन्मेदुरान्तःप्रसादः^१
 स्तात्कालीनस्मितनवसुधास्यन्दनन्दनमुखेन्दुः ।
 सान्द्रोन्मीलकुबलयदलासारचारुणि मन्दं
 साकूतानि त्वयि विरचयेत्साचिविप्रेक्षितानि ॥

(१२५)

एतत्कृत्वा मधुकर भवानीपिसतं मे दयावान्^२
 वृन्दे वृन्दावनसुमनसां नित्यमानन्दमेतु ।
 अप्यामेदप्रसरसुभगामच्युतस्यानुबेलं
 वलाहृज्ञीरणितमुखरां वैजयन्तीमुपास्ताम् ॥

(१२६)

मुरधां दीनामिति निजपदे वाचिकं सान्दशन्ती-
 मार्तशाति^३ व्यसनशमनायात्तलीलाबतारः ।
 विश्वात्मा^४ तां सपदि परमानन्दमूर्तिर्मुकुन्दः
 साक्षाद्भूय स्वयमभिमतप्रापणायानुनिन्ये ॥

^१ मेदुरातत्प्रसाद० (ह. पु.)

^२ मैदयाचान् (ह. पु.)

^३ शात् (ह. पु.)

^४ विश्वात्मानां (ह. पु.)

श्रीकृष्णदेवस्मरणाभिधानः^१
 शताब्धानः परमाभिधानम् ।
 श्रीभूज्जदूतं श्रुतिसारभूतं
 व्यधादितप्रेमकथानुभूतम् ॥

इति श्रीशताब्धानकविकलितं भ्रमरसन्देशं^२ समाप्तम्^३ ॥
 संवत् १७५२ वर्षे फाल्गुन^४ वदी अष्टम्या रविवासरे ॥ शु ॥

अलेखि रामकृष्णेन सूकरक्षेत्रवासिना ।
 पुस्तकं भूज्जदूतस्य धर्मकामार्थसिद्धये ॥

॥ रामाय नमः ॥

^१ एतस्मस्तपदस्यार्थसम्बन्धे भूमिका दृष्टव्या.

^२ शोदशं० (ह. पु.)

^३ शमाप्तम् (ह. पु.)

^४ फाल्गुण (ह. पु.)

THE EARLY DEVELOPMENT OF THE URDU LANGUAGE.

BY GHULAM MUSTAFA KHAN, M.A. (NAG.), M.A., LL.B. (ALIG.),
King Edward College, Amraoti.

SECTION A.

Origin of the Word "Urdu".

"URDU" is a Tartar word which can be traced back to the time of Changez Khan¹ (1155–1227 A.D.). It was then used in the sense of the "camp" of the princes. Alāuddīn Atā Malik Juvaini, who wrote *Tareekh Jahākushā*, while dealing with the history of Changez Khan and his ancestors, thus uses this word, "dar *Urdū-e-* Shahzādagā dar natawānand āmad" (they cannot enter the 'camp' of the princes).² It will be interesting to note that the word 'horde' in the European languages is the corrupt form of Urdu (*i.e.*, Moghul camp).

According to Grahame Bailey, this word (Urdu) first came in India with Babar,³ but we cannot believe in this statement, because Shams Afeef had already written his *Tareekh-e-Firoz Shahi* in 801 A.H./1399 A.D. (dealing with the history of Firoz Shah Tughlaq), wherein he uses this word, "ba āwāza-e-bazl-o-ātā az har chahār jānib khalq muṭawajjah-e-*Urdu-e-*on gardeed (Having heard of the generosity and bounty of Firoz Shah Tughlaq, people from all quarters assembled at his *camp*)."⁴ Hence we cannot definitely say who first brought this word, but this is a fact that it was used in India much before Babar.

When the Muslims came to India their foreign words were mixed with those of the Indian languages and this 'mixture', as we shall see later, received 'Urdu' as its name. This language was also called 'Rekhta'.⁵

¹ Dr. Kausar Chandpuri has mentioned one verse of Firdusi (920–1020 A.D.), referring to Changez Khan, in his essay on this Moghul, in *Alamgir*, dated September 1934. It runs thus:—

"Warā bud ba Farkhanda, *Urdu* dārū
Khawāsteen-o-banovi, pāsād fuzū."

This verse contains the word "Urdu". But really this verse neither belongs to Firdusi nor he could ever be able to write it about Changez Khan who lived about two centuries later than him.

² *Tareekh Jahākushā*, Vol. I, p. 40.

³ Grahame Bailey, "Urdu : The Name and the Language," *J.R.A.S.*, April 1930.

⁴ Shams Afeef, *Tareekh Firoz Shahi*, Cal. edition, p. 53.

Even as early as in the year 653 A.H./1261 A.D. (in the reign of Nāsiruddin Mahmood) this word, in the same sense, was used by Minhajuddin in his book *Tabāyid-i-Ndsiri* (Cal. edition, p. 227).

⁵ Nassakh, *Zabān-e-Rekhta*, p. 3.

(or the mixed language) because of the introduction of those foreign words into the various dialects of India.

Nassakh⁶ traces the origin of this "mixed language" from the time of Mohammad Ghauri when the Muslim soldiers first settled in India. In his opinion this 'mixture' adopted a new course of development on Mohammad Tughlaq's change of capital from Delhi to Daulatabad which resulted in the admittance of the Deccan words into the "mixed language". Beames says, "For many generations after the victories of Kutbuddin Aibak, the first Musalman sovereign of Delhi, the conquerors retained their own Persian and the conquered their Hindi. The Musalmans had long been accustomed to speak pure Hindi, and it was not they who introduced Persian words into the language, but the Hindus themselves, who.. were compelled by Todar Mal's new revenue system to learn Persian."⁷ Like Beames, Meer Amman has also traced the origin of Urdu from the time of Akbar, as he remarks, "When Akbar ascended the throne, various races from all quarters, on hearing the kind patronage and bounty of that incomparable house, came and assembled in the royal presence, but the speech and dialect of each was different. From their being collected together, and owing to the trade, traffic and intercourse which they carried on with one another, a single language, that of the Urdu was established."⁸ But Dr. Gilchrist⁹ has traced the origin of this language from the time of Timur (1398 A.D.). Maulana Abdussalam Nadyvi¹⁰ says, "In the fort of Akbar (at Agra) there was a Zenana market meant for the queens and the princesses, and the shop-keepers were Arab, Persian, Turkish and Indian ladies. Due to their transactions and bargains their various languages intermingled and then formed into a new shape. This was 'Rekhta' or the mixed language, which came out of the four walls of the fort on the lips of the small boys thereof, and after having been mixed with Persian it appeared in a developed form." The second reason for this mixture of the languages was, as he further states, the social mixture (co-operation) of different people of different nations and the third was the presence of Hindu princesses in the royal seraglio, which had already in itself the Turkish and Persian elements. Dr. Colebrooke calls 'Urdu' a developed form of Bhasha which sprung up in the fifteenth century A.D.¹¹

⁶ Nassakh, *Zabān-e-Rekhta*, pp. 3 and 4.

⁷ Beames, *A Comparative Grammar of the Modern Aryan Languages*, Vol. I, p. 30.

⁸ Meer Amman, Introduction of *Bagh Bahar*.

⁹ Dr. Gilchrist, *Hindoostani Philology*.

¹⁰ Maulana Abdussalam Nadyvi, *Shirul Hind*, Vol. I, pp. 12 and 13.

¹¹ Dr. Colebrooke, *Asiatic Researches*, Vol. VII, p. 220.

We find two things common in all the above theories of the origin of Urdu ; firstly, that this new language owes its origin to the advent of Muslims in India;¹² and secondly, that it has a historical background which helped in the formation and, later on, in the extension of its vocabulary. These two points will help us to understand the origin of Urdu in a better way.

The Muslims conquered Persia in 22 A.H. (641 A.D.) and Makran and Seistan, which are close to India, between 23 A.H. (642 A.D.) and 35 A.H. (654 A.D.). Through Kabul they reached upto Lahore and Multan in 44 A.H. (663 A.D.). Later on, they, of and on, attacked the western ports of India for about twenty years, till Mohammad bin Qasim conquered Babylonia in 86 A.H. (705 A.D.). In 96 A.H. (715 A.D.) the Muslims reached upto Bahmanabad and Alwar. For about 200 years the Baghdad Court of Arabia appointed governors for Sindh. At length, on the downfall of the Abbaside caliphate, the Arab tribes, living in Sindh and in its vicinity, formed petty states of their own.

As a result of the attacks of Mahmood Ghaznawi and Mohammad Ghauri, the Muslims spread eastward upto Bengal and southward upto Kalinjar. Alauddin Khilji's victory of Deogarh and Warrangal closely connected the people of the Deccan with those of Northern India. In 746 A.H. (1346 A.D.) the Bahmani kingdom was established. It lasted for about two hundred years, till in 933 A.H. (1527 A.D.) it was divided into five small kingdoms of Bijapur, Golkunda, Ahmadnagar, Bidar and Berar. This short sketch of the Muslim History will enable us to understand clearly, in the next pages, the development of our Urdu language.¹³

SECTION B.

Beginning of the Urdu Language.

Grahame Bailey assigns the birth of Urdu to the year 1027 A.D. when Mahmood Ghaznawi annexed the Punjab, because, as he says, "at that time these Persian-speaking soldiers (Muslims) began to live among a people whose language was old Punjabi, to mix with them, to have intercourse

¹² Mohammad Badrudduja, in his essay on "Urdu" in *Alamgir*, dated September 1930, mentions three sentences uttered by Gautama Buddha, "Dharm karo. Dharm ka sankh phooko. Dharm ki dund machao". (Adopt virtue; blow its trumpet; and popularise it.) These sentences belong not to Pali or Sanskrit but to the pure Urdu of to-day. Hence it can also be rightly supposed that Urdu or the mixture of languages took its raise in India during the time of Gautama Buddha or even before him, i.e., on the co-operation of foreign Aryans with the non-Aryans of India.

¹³ *Farishta*, Vol. I, and Elphinstone's *History* may be consulted for the details of the early Muslim occupations in India.

with them, and we cannot doubt, to learn their language."¹⁴ This is a mere supposition and we cannot believe in it, unless we get some definite linguistic proof. Grahame Bailey has entirely neglected the beginning of this mixed language even at a much earlier period at the time of the occupation of Sindh by Mohammad bin Qasim. The Arabs occupied Sindh for about four hundred years and during this long period of time various Arab tribes came and settled there. At length, the natives and the foreigners so much mixed together that a common language was evolved. Astakhri, a tourist from Baghdad, who came here in 340 A.H. (972 A.D.) informs us that in Mansoora (Bhakkar), Multan and in their vicinity the mixed Arabic—Sindhee was then spoken and in Makran the mixed Makrani—Persian was in full use.¹⁵ Eighteen years later, i.e., in 358 A.H. (990 A.D.) Ibu Hokul, another tourist came to India. He also holds the same opinion.¹⁶ This mixture of languages may be termed as 'Reklita' or Urdu; and it is just possible that in the near future we may discover some manuscript of that age that will solve this enigma of the "mixed language". Here are few reasons to believe that really Arabic had then much influenced Sindhee :—(a) It is only after Mohammad bin Qasim's invasion of Sindh that Arabic words; such as, 'jabal' (hill or mountain), 'basal' (onion), etc., are found in Sindhee.¹⁷ (b) Like Multani, this Sindhee is also written in the Arabic (Naskh) character. (c) No trace of Sindhee writing of a time earlier than the Muslim invasion has yet been found out. The Arabs lived for centuries in Sindh, hence it may be rightly supposed that it was Arabic which induced Sindhee to adopt its script.

According to Mahmood Shirani, the oldest trace of Urdu is found in a hemistich of Mas'ood bin Sa'd. It runs thus :—

"bar āmad az pase dīwār-e-hasn mārāmār."¹⁸ The last word 'mārāmār' is an Urdu compound. This Mas'ood and Abu Abdullah were the contemporaries of Sultan Ibrahim ($\frac{451-492 \text{ A.H.}}{1059-1099 \text{ A.D.}}$), the grandson of Mahmood Ghaznawi, and used to write verses in 'Hindi' (i.e., Urdu).¹⁹

Maulana Sulaiman Nadvi stands unquestioned in his research when he mentions one quatrain of Sanai ($\frac{464-545 \text{ A.H.}}{1072-1151 \text{ A.D.}}$) as thus :—

¹⁴ Grahame Bailey, "Urdu : the Name and the Language," *J.R.A.S.*, April 1930.

¹⁵ *Maqalat-e-Urdu*, printed by Anjuman Urdu-e-Mualla, Aligarh.

¹⁶ *Ibid.*

¹⁷ *Hindustan mē Hindustani*, printed by Anjuman Urdu-e-Mualla, Aligarh, p. 10.

¹⁸ Mahmood Shirani, *Punjab mē Urdu*.

¹⁹ Shamsullah Qadri, *Urdu-e-Qadeem*, p. 21.

" tū be marg hargiz bajāe na yābī
 zi shak nimatehāe inī-o ānī ;
 asāmī darēē alamaṣṭ arna hāshā,
 chi āb-o chi nān-o chi maidā chi pānī.²⁰

The last two words 'maida' (flour) and 'pānī' (water) are really in the Urdu vocabulary.

The Nagri Pracharni Sabha of Benares has published a book "Desal Rai Sau" in 1925 which was composed by an illiterate poet Nripat Lall in 1155 A.D. It contains some 'Urdu' words as "ba'z ba'z", "tāzyāna", etc.²¹ Chandra, the bard of Prithviraj, wrote "Prithviraj Rai Sau" in 1193 A.D., which also contains many 'Urdu' words.²²

Sa'di Shirazi (1184-1291 A.D.), wrote a fragment wherein a beloved speaks in various languages. Therein one hemistich also occurs in our Hindi (Urdu) language, and it is this :—

"gah ba Hindi goyadam 'pānī' piyan 'roti' kahan."²³

Shams Afeef writes in his *Tāreehk-e-Firoz Shahi* that once Firoz Shah Tughlaq sent an officer Malik Qubool to Sultan Sikandar of Bengal who asked his name and he replied "torā-bāda", i.e., "(I am) your slave".²⁴

Ziyauddin Barni has also used, in his history, many 'Urdu' words which must have been common in those days in Delhi and in its vicinity. Some of them are these : *Khāt* (cot), *lūdī* (maid-servant), *lāṭ* (leg), *karore* (crore), *bhangī* (sweeper), *chhappar* (roof), *mundal* (temple), *ghātī* (valley), etc.²⁵ It appears, therefore, that Barni could not avoid the use of these words in his Persian book (of history) because of their common use at that time.

Now we should see some better specimens of our old 'Urdu'. In the Punjab, there was a saint Fareeduddin Shakar Ganj ($\frac{569-664 \text{ A.H.}}{1174-1266 \text{ A.D.}}$) whose mother uttered "khoja bālā hai", and he replied "pūnō kā chād bhi bālā hai".²⁶ He used to call a friend as 'Bhaiyā'.²⁷ These and some other words also are preserved in the books *Sairul Aulia*, *Jawāhir-e-Fareedi*, etc.

²⁰ *Magalat-e-Urdu*, printed by Anjuman Urdu-e-Mualla, Aligarh.

²¹ Zamin Ali, *Urdu Survey Report* (Hindustani Academy, Allahabad).

²² Azad, *Ab-e-Hayat*.

²³ *Kulliyat-e-Sa'di*, printed at Bombay in 1256 A.H. (1839 A.D.), p. 170.

²⁴ Shams Afeef, *Tāreekh-e-Firoz Shahi*, p. 160.

²⁵ Ziyauddin Barni's *History of the Tughlaqs*.

²⁶ *Sairul Aulia*.

²⁷ *Aṣrārul Aulia*, p. 4.

Maulana Abdul Haque has found out his two poems and one ode. The latter begins thus :—

“ Waqt-e-sihir waqt-e-munajat hai,
khez drā waqt ki barkat hai,
Nafs mabādā ki bigoyad turā,
khasp, chi khezi ki abhi rāt hai.”²⁸

He has also found out one Urdu sentence “ turkā kuchh samajhdār hai,” uttered by Abu Ali Qalandar of Panipat [died ($\frac{724 \text{ A.H.}}{1325 \text{ A.D.}}$) to Ameer Khusro of Delhi.²⁹

There is an ode of Ameer Khusro ($\frac{605-725 \text{ A.H.}}{1209-1326 \text{ A.D.}}$)³⁰ in ‘ Rekhta’ often mentioned by various authorities.³¹ It begins thus :—

“ zi hāl-e-miskī makun tagħafūl qurāe nainā banāe batyā ”.

Meer has also mentioned one fragment of this poet :—

“ zargar pisare chū māhpārā
kuchh gharie sāwārie pukārā,
naqde qil-e man girafṭ-o-bishkast,
phir na kuchh ghara na kuchh sāwārā.”³²

Here the use of the verb ‘ gharaṇa ’ itself clearly denotes that it must have been written by some person of Delhi.³³

We find one Urdu sentence uttered by another saint Khwaja Naseeruddin Chiragh Dehlawi to his devotee Akhee Siraj on his refusal to go to Bengal because of the presence of Alāuddin Qul there. It was this : “ tum ūper wuh tāle ”.³⁴

²⁸ Abdul Haque, *Urdu ki nashvo numa mē Sufia kā kām*.

²⁹ *Ibid.*

³⁰ *Shi'rul Ajam*, Vol. II.

³¹ Azad, Hazrat Ahsan, Maulana Abdul Haque, Shamsullah, etc.

³² Meer, *Nukatush Shu'ara*.

³³ Apart from Ameer Khuaro's Bhasha poetry, he had a fluent tongue in Urdu as well. His book *Khaliq Bari*, which is a versified dictionary giving “Urdu” equivalents of Persian words, shows that he was a perfect master of Urdu. Hence he could write hundreds of enigmas and songs in Urdu (besides some in Bhasha) with full ease and command. Here we mention only two enigmas (riddles) out of many, which are the specimens of the purest and best Urdu of to-day :—

(1) “ek buphyā Shaitān ki khala,
Sar hai safed aur mān̄h hai kāla.”

(2) “gole mole aur chhota mota,
har dam wuh to zamin per lota.”

Hence, we can rightly conclude that during his time Urdu was in its fully developed form and not in its primary stages.

³⁴ *Kharinatul Aesfa*, Vol. I, p. 353.

Maulana Abdul Haque has published one book *Mirajul Ashiqin*, written on mysticism by a famous saint Hazrat Gesoo Daraz who died in 825 A.H. (1422 A.D.). Its language so runs :—" Ai aziz ! Allah bandapanā yahā pichhān ko jānā naiē to shat'a jātā hai. Awwal apni pichhāt ba'daz Khudā ki pichhāt karnā"—such language is still spoken by certain old women of the Deccan and Malwa. Syed Najeeb Ashraf Nardwi has got a dictionary (manuscript) in his library which begins thus :—

"Allāh parastīdā poojyā—Alma'loom dānistā būjhya.

Almohammad Sītoodā bikhānya—Alma'rūf shanakhṭa pichhānia.

Arrasūl faristāqā bhejya—Alwazeh raushan satujya.

Alāl dūdmān kunba—Alu'nqūd khosha lonya."³⁵

There is no date on this manuscript, but by comparing its 'Urdu' words with those of the said *Mirajul Ashiqin* we can rightly suppose that both of these books must have been of one age.

Hazrat Qutb Alam ($\frac{790-850 \text{ A.H.}}{1389-1447 \text{ A.D.}}$) once injured his one foot in a dark night with some log, then said, in Urdu, "Kiyā hai, lohā hai, ki lakṛi hai, ki paṭṭhar hai."³⁶ His son Shah Alam's one sentence "chistiyyōne pakāie une Bukhariyō ne khāie,"³⁷ is also a very clear specimen of Urdu of that age.

Now we mention here about a marvellous discovery which will be really wondered at. Meer Nazar Ali Dard has mentioned in his essay "Shumāli Hind aur Urdu" about a book on mysticism written in 708 A.H. (1309 A.D.) by Hazrat Ashraf Jehangir ($\frac{688-808 \text{ A.H.}}{1289-1405 \text{ A.D.}}$), a long-lived saint of Kichhochha (District Fiazabad, U.P.). Its language (on page 18) so runs :—" Ai ṭalib Āsmān zamin sab Khudā mē hai jo tāhqīq jān agar tujh mē kuchh samajh ka zarra hai to sifat ke bāhar bhītar tamām zāt hī zāt hai."³⁸ This language is so simple, sweet and fluent that every body even now can easily and fully understand and will ever appreciate it. It is as old as about six hundred years and is the best specimen of the current Urdu of that time and of that place. This is an assertion which none can refute and for the discussion as to the origin and beginning of Urdu it will be an unchallenged and living proof till all times to come.

In the tenth century A.H. (or sixteenth century A.D.) Gujarat was a vast territory, stretching from Jodhpur southward upto Malabar ; and Surat

³⁵ Shibli Library of Azamgarh.

³⁶ *Mirat-e-Ahmadi*, Vol. II, p. 17.

³⁷ *Ibid.*, p. 18.

³⁸ Meer Nazar Ali Dard Kakoravi, "Shumāli Hind aur Urdu," Annual *Yadgar*, dated 1934.

was a big trading centre. It was a port for Indian Muslims to sail away for the holy pilgrimage. Shaikh Bahāuddin Bājan (died $\frac{912}{1507}$ A.H.)³⁹, Shah Mohammad Jeo ($\frac{973}{1567}$ A.H.)⁴⁰ and the latter's devotee Peer Badshah were the famous preachers of Islam, and they wrote verses on mysticism. The verses of the first two saints are deeply coloured in the hue of the native tongue, hence they are not clear, but Peer Badshah's verses are a bit easier; such as, "Roo baroo hai shihr-e-darsan be naqāb, dek nā sak bolte hāī dar hijāb."⁴¹

This mixed language (Urdu) was also given different names in different provinces. In the Deccan it was known as Dakkhani, in Gujarat as Gujri⁴² and in Northern India as Hindi. The last name was often used for our language even as late as in the thirteenth century A.H. (nineteenth century A.D.) when Mushafi has also called his biographies of poets as "sukhan goyāne Hindi".⁴³ There is a great conflict of opinions as to the first occurrence of the word 'Urdu' as the name of our language. Najeeb Ashraf Nadwi says, "Before the Moghuls it was called 'Hindi', 'Hindavi' or 'Dehlawi', but after them it became known as 'Zabān-e-Urdu-e-Mu'alla' or 'Urdu', which contains the Persian words to a great extent."⁴⁴ Meer says, "dar fan-e-Rekhta ki shi'rest baṭāur-e-shi'r-e-Fārsi ba zabān-e-Urdu-e-Mu'alla-Shahjahan- abad Delhi."⁴⁵ Meer lived much before Tahseen, the author of *Nau Tarz-e-Murassā* wherein he has used three words (a) 'Hindi', (b) 'Rekhta,' and (c) "Zabān-e-Urdu-e-Mu'alla" for our language in one page.⁴⁶ Nawab Shujauddaula died in 1775 A.D. and then Nawab Asifuddaula ascended his throne when Tahseen had already written this book, as he says in its preface, "Chāhṭā thā ki is nāznī ke ṭaien nazar-e-mubarak se quzrānū ki is arse mē zamāne ne aur hi rāg dikhlayā,"⁴⁷ referring to the fact that he wanted to present this book to Shujauddaula but he expired. From this internal evidence we will have to believe that *Nau Tarz-e-Murassā* must have been written before (by) 1775 A.D. This ultimately means that the name 'Urdu' has been applied actually to our language before 1775 A.D. by Tahseen and

³⁹ *Urdu-e-Qadim*, p. 46.

⁴⁰ Maulana Abdul Haque, *Urdu ki kām*.

⁴¹ *Ibid.*

⁴² *Urdu-e-Qadim*, p. 45.

⁴³ Mushafi, (a) *Tazkirā-e-Hindi*; (b) *Riyāzul Fusahā*.

⁴⁴ Najeeb Ashraf Nadwi, *Maqalat*, p. 100, *Maarif*, dated August 1928.

⁴⁵ Meer, *Nukatul-Shuara* (Preface), p. 1.

⁴⁶ Tahseen, *Nau-Tarz-e-Murassā* (Preface).

⁴⁷ *Ibid.*

Meer had used it even much before this date. Later on, this name gradually attained popularity till Mushafi clearly said : "Khuḍā rakkhe zabā ham ne sunī hai Meer-o-Mirza ki, kahē kis muh se ham ai Mushafi *Urdu* hamārī hai." In the nineteenth century A.D. Nāsikh and his pupils totally removed all the various names of our language at Lucknow, and called it only 'Urdu'.⁴⁸ Since then this name has been permanently established, although only Ghālib has called Urdu as 'Rekhta' even much later, as he says :—

"jo yih kahe ki Rekhṭā kiyūkar hai rashk-e-Farsi,
gufṣā-e- Ghālib ek bār paṛh ke uṭā sunā ki yū."

SECTION C.

Literary Development in Urdu.

Now we should see when our language was first given a lift by the literary men. For this purpose we are able to find out four dictionaries. The first (and not the oldest) is *Bahrul Fazāil fi manāfi'l Afāzil*, which was written before 795 A.H. (1393 A.D.) by Mohammad bin Qawam, certain literary man of Northern India. The second dictionary is *Adatul Fuzala*, which was written in 822 A.H. (1420 A.D.) by Mulla Nazar Mohammad of Delhi. The third one is *Sharaf Nama*, prepared by Qawamuddin Ibrahim Farooqi between 862 and 879 A.H.⁴⁹ dedicated to and named after his saint Sharfuddin Yahya Muneeri; and the fourth is *Muaiyidul Fuzalā*, compiled by Shaikh Lād of Delhi in 925 A.H. (1519 A.D.), during the reign of Sultan Ibrahim Lodhi.⁵⁰ These four dictionaries often give 'Urdu' equivalents as well, most probably to complete the sense conveyed by the meanings or explanations in Persian. We, thereby, understand few of the following points, especially in connection with the first dictionary above-mentioned :—

(1) In the eighth century A.H. (or fourteenth century A.D.) a literary man has used our language. He must not have used it, if it had not had any literary value before him.

(2) Since it was used to explain to the people knowing Persian we can guess that it must have been in full use at least in speech. As regards its use in writing we can boldly say that the said dictionaries themselves are a proof therefor. "Khaliq Bari" (the oldest dictionary) written by Ameer Khusro in the seventh century A.H. (thirteenth century A.D.) is the strongest proof for the complete and perfect establishment of Urdu in that century.⁵¹

⁴⁸ Maulana Abdussalam Nadwi, *Shi'rul Hind*, Vol. I, p. 190.

⁴⁹ *Urdu-e-Qadim*, pp. 32 and 33.

⁵⁰ See the foot-note no. 33.

This point is further supported on the recollection of the said book on mysticism written in simple and the then current language in 708 A.H. (1309 A.D.) by Hazrat Ashraf Jehangir, a contemporary of Ameer Khusro. The hold of Urdu can again be realised on the study of (a) Ziyauddin Barni's *History of the Tughlaqs* and (b) Shams Afeef's *Tāreekh-e-Firoz Shahi*. Both these historians, who lived in the latter part of the fourteenth century A.D., could not avoid the use of 'Urdu' words in their Persian works.

(3) Merely Persian was not deemed enough by Mohammad bin Qawain, etc., for conveying the full sense of the Arabic or Persian words, hence, 'Urdu' equivalents were also added, i.e., even in the eighth century A.H. (or fourteenth century A.D.) our language had perhaps the better capacity in itself (than Persian) for explaining to an Indian.

(4) Urdu must have then had a value in itself before the eyes of the Persian-knowing people for whom it was meant. Those people, most probably, had a regard for Urdu, besides their own Persian, otherwise these writers would not have dared to write it against the taste of the readers.

(5) The first dictionary (as the three others) was written in Northern India in the fourteenth century A.D. Hence, those⁵¹ who trace the earliest "literary phase" of Urdu only from the Deccan are not correct in their view. The oldest among the Deccan books are the few booklets on mysticism written by Shaikh Ganjul Ilm ($\frac{706-795 \text{ A.H.}}{1307-1393 \text{ A.D.}}$) who was, in fact, a native of Delhi.⁵² If merely this sort of writing is termed as the "literary phase" of Urdu, then we, too, would be justified to recollect once again Fareeduddin Shakar Ganj ($\frac{569-664 \text{ A.H.}}{1174-1266 \text{ A.D.}}$) of Pakpattan (Punjab), Abu Ali Qalandar ($\frac{724 \text{ A.H.}}{1325 \text{ A.D.}}$) of Panipat and Ameer Khusro ($\frac{605-725 \text{ A.H.}}{1209-1326 \text{ A.D.}}$) of Delhi. But for the real "literary phase" of our language in Northern India we again recall to our mind Khusro's *Khaliq Bari*, which may be supported by the five points already stated above in connection with the "Bahrul Fazail". On the contrary, in the Deccan we find through the writings of Shamsul Ushshaq (died $\frac{902 \text{ A.H.}}{1497 \text{ A.D.}}$), and his son Burhanuddin Janam ($\frac{991 \text{ A.H.}}{1583 \text{ A.D.}}$) that they called this language (Urdu) as "ghur bhākā"

⁵¹ (a) Naseeruddin Hashmi, *Deccan mē Urdu*, p. 13.

(b) *Urdu-e-Qadim*, p. 111.

⁵² *Urdu-e-Qadim*, pp. 39, 115.

(or the language of the dung-hill) *i.e.*, a language which was used only by the common people, but the literary or learned men hated it—a fact which these saints have themselves admitted.⁵³ They used this language merely for preaching the faith to a majority of people who could easily understand it,⁵⁴ although it was not worthy of any regard in the Deccan till the first half of the eleventh century A.H. (seventeenth century A.D.) when Mulla Wajhi wrote his *Sab ras* in 1045 A.H. (1636 A.D.) on the request of Abdullah Qutb Shah, the ruler of Golkunda.⁵⁵ Maulana Abdul Haque calls it the first literary book on Urdu prose.⁵⁶ Apart from this literary phase of the book, it is singular in the subject-matter itself wherein we find peculiar characters like 'heart', 'love', 'separation', etc. But in order to comprehend the complete establishment of Urdu both in speech and in writing we again look back at the "Khaliq Bari" of Khusro; and also the mystical book of Hazrat Ashraf Jehangir who wrote it in 708 A.H. (1309 A.D.) (for preaching Islam to the common people) in sweet, simple and fluent Urdu. The next proof is *Bahrul Fazail* ($\frac{795}{1393}$ A.H.), about which we have already seen above. The histories of Shams Afeef and Ziyauddin Barni, which contain 'Urdu' words, also witness the popularity of our language in the fourteenth century A.D. The poetry of Hazrat Kabir (a contemporary of Sikandar Lodhi⁵⁷) cannot be overlooked. Maulana Abdul Haque is really true to say that he (Kabir) was one of those saints who for the first time united the Muslims and Hindus both in religious thoughts as well as in languages.⁵⁸ His verses are so simple and sweet that even Abdurrahim Khan-e-Khanan will hardly stand a match. We remember few of his verses here :—

- "(a) Kabir sareer sarāe hai kiyū sowē sukh chāīn,
kooch nagārā sās kā bājāt hai dīn rāīn.
- (b) Jāg piyāre ab kā sowē ;
rāīn gaiē dīn kāhe khōwe.
- (c) marē tō marjāiey chhūt pārē janjār ;
aisa marnā ko marē dīn mē sau sau bār."⁵⁹

For the general and gradual hold of Urdu over the tongues of the Indians

⁵³ Maulana Abdul Haque, *Urdu Sufia kā kām*.

⁵⁴ *Ibid.*

⁵⁵ Mulla Wajhi's Preface of *Sab ras*.

⁵⁶ Maulana Abdul Haque's Introduction of *Sab ras*.

⁵⁷ *Dabis̄ānul Maz̄hib*, p. 246.

⁵⁸ Maulana Abdul Haque, *Urdu Sufia kā kām*.

⁵⁹ *Ibid.*

we can only refer here about the religious songs of Sūr Dās and Tulsī Dās who used Arabic and Persian words spontaneously.⁶⁰ We remember here one riddle of Birbal. He says :—

“ghee mē gharq sawād mē niethā,
bin bele wuh belā hai ;
kahē Birbal sunē Akbar,
yih bhi ek paheṭā hai.”⁶¹

This is a fine specimen of clear and simple Urdu of the time of Akbar. Mulla Noori, a friend of Faizi, has spontaneously used one Urdu hemistich to complete his verse :—

“har kas ki khyānat kunađ albat̄a bitarsađ,
bechārāe Noori na kare hai na dare hai.”⁶²

From the above discussion we can safely conclude that Urdu must have spread throughout the length and breadth of Northern India in the eighth and ninth centuries A.H. (or the fourteenth and fifteenth centuries A.D.). Now Shamsullah Qadri does not seem to be correct in his view that Urdu was used in (Northern) India merely for the purpose of ordinary speech and transaction upto the beginning of the twelfth century A.H. (eighteenth century A.D.).⁶³ This view can be refuted even if we only remember here few poets (of Urdu) of Northern India ; such as, (a) Sa'di Kākoravi [died ($\frac{1002 \text{ A.H.}}{1594 \text{ A.D.}}$)], who lived in the reign of Akbar,⁶⁴ (b) Afzal Jhanjhānavi [died ($\frac{1035 \text{ A.H.}}{1626 \text{ A.D.}}$)],⁶⁵ (c) Meer Mui'z Mūsawi Khan Fitrat [died ($\frac{1101 \text{ A.H.}}{1690 \text{ A.D.}}$)],⁶⁶ (d) Abdul Qadir Bedil [died ($\frac{1133 \text{ A.H.}}{1721 \text{ A.D.}}$)],⁶⁷ (e) Mirza Abdul Ghani Beg Qubool [died ($\frac{1139 \text{ A.H.}}{1727 \text{ A.D.}}$)],⁶⁸ etc. These poets are still remembered for their fine verses of Urdu. Besides them, there was another saint Sāhibul Barkāt of Marehra (District Etah, U.P.)

⁶⁰ Shamsul Ulama Maulana Abdul Ghani, *A History of Persian Language and Literature at the Moghul Court*, Vol. III, Chap. V.

⁶¹ Azād, *Darbār-e-Akbari*, p. 310.

⁶² Shamsul Ulama Maulana Abdul Ghani, *A History of Persian Language and Literature at the Moghul Court*, Vol. III, Chapter V.

⁶³ Shamsullah Qadri, *Urdu-e-Qadim*, p. 111.

⁶⁴ *Tabqāt-e-Akbari*, p. 395.

⁶⁵ *Aligarh Magazine*, dated April 1936, p. 61.

⁶⁶ Nassākh, *Zaban-e-Rekhīta*, p. 6.

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*

of the eleventh century A.H. (seventeenth century A.D.) who collected hundreds of Urdu proverbs, which we all use freely even to this day.⁶⁹ This is a fact that proverbs are made only when the language or dialect itself is firmly and fully established. It is, therefore, obvious that these poets and writers gave a general and permanent shape to Urdu prose and poetry much before the eighteenth century A.D.

⁶⁹ *Awarif-e-Hindi*, published by Hazrat Ahsan Marchravi.

PHILOSOPHY OF THE PRAJÑĀ-PĀRAMITĀS*

BY DR. JWALA PRASAD, PH.D. (CANTAB.)

ALTHOUGH the various texts constituting the Pāramitā literature belong to an altogether different school, from the point of view of both the style and the essentials of their doctrine they may be truly called the *Upaniṣads* of Buddhism. They form the basis of the Mādhyamika-kārikās of Nāgārjuna, and should serve as a useful introduction to the philosophy of that work, which has been variously described by scholars as nihilism, negativism, relativity and so on. The main doctrine of the Pāramitās, as also of Nāgārjuna's *Kārikā*, is voidness (*śūnyatā*), which I shall try to show, is not a theory of negation or nihilism, but one of absolute existence, very much corresponding to the Brahman doctrine of the *Upaniṣads*. The same earlier affinity between the *Upaniṣads* and the Pāramitās should explain the later similarity between the *Vedānta* and the Mādhyamika School of Buddhism. In fact, the Vedāntists, especially of the school of Gaudapāda, have been called Buddhists in disguise (*pracchanna bauddhāḥ*) by the followers of the other Hindu schools. But it will appear from a careful comparative study of the *Upaniṣads* and the Pāramitās, that evidently the authors of the latter had followed the *Upaniṣads* both in style and thought with such modifications as were necessary to make their works conform to the essentials of the Buddhist doctrine. For instance, while describing the ultimate reality as an absolute existence, mostly in the Upaniṣadic sense, they only excluded the conception of self, because that would have been inconsistent with the Buddhistic doctrine. Similarly, it will appear that later on Gaudapāda's position was much the same as that of Nāgārjuna with the exception that, while Nāgārjuna described the absolute existence as voidness, Gaudapāda called it self or Brahman.

Consistently with their doctrine that the whole world of experience is unreal, or rather illusory, the Prajñā-pāramitās hold that no real knowledge is possible; which theory was more elaborately worked out, later on, by Nāgārjuna by showing that all notions about the world of experience were either relative or contradictory, and hence devoid of truth.

One of the important works of the Pāramitā literature is the *Aṣṭasāhasrikā*. The first chapter of this treatise deals with the 'knowledge of

* This paper is based upon one of the chapters in the author's forthcoming work on Indian Epistemology.

all forms'—*sarvākārajanatā*, and it is maintained that consciousness (*citta*), the various *skandhas*, signs (*lakṣaṇa*), and the objects signified (*lakṣya*)—are all unreal, literally, devoid of the forms and characteristics which they seem to possess. In a dialogue between Sāriputra and Subhūti, the nature of consciousness is discussed, and following a statement on the part of Subhūti that consciousness is non-consciousness, and that its nature is illumination (*prakṛitis cittasya prabhāsvarā*), Sāriputra asks Subhūti to explain further what he means by consciousness, which, according to him, is non-consciousness. Subhūti, having first elicited from Sāriputra the assertion that the quality of non-consciousness (*acittatā*) does not admit of the prediction of being (*astitā*), says that it is something which does not admit of any modification (*avikārā*) or variation (*avikalpā*).¹ In another portion of the dialogue it is maintained that the various *skandhas*,² viz., *rūpa* (form and substance), *vedanā* (feeling), *saṃjñā* (cognition), *saṃskāra* (dispositions), and *vijñāna* (knowledge) are devoid of their respective natures. Similarly perfection of wisdom (*prajñā-pāramitā*), omniscience (*sarvajñatā*), signs (*lakṣaṇa*) and the things signified (*lakṣya*) are also devoid of their respective natures. And, to make the doctrine complete, it is maintained lastly that the nature of things is itself devoid of its own nature—*svabhāvalakṣaṇenāpi svabhāvo vivahitaḥ*.³

In Chapter XIII (*Acintya-parivarta*), dealing with the 'inconceivable', the Lord says that all substances (*sarvadharmaḥ*) are inconceivable (*acintyāḥ*), incomparable (*atulyāḥ*) ; such as cannot be counted (*asamkhyeyāḥ*), and devoid of inequality or quality (*asama-samāḥ*). Then by way of an explanation it is asserted that they are inconceivable, because the intellect cannot get at them (*cittoparamatvāt*) ; they cannot be compared, because they are beyond comparison (*tulanā-samatikṛantatvāt*) ; and they cannot be measured, and do not admit of counting and the distinctions of equality and inequality, because they are beyond measuring, counting and comparing.

The doctrines of suchness (*tathatā*) and voidness (*śūnyatā*) are expounded in Chapters XVI and XVIII respectively, and in spite of the paradoxical nature of the language, it is clear that they represent a philosophy of absolute existence. Subhūti first asserts that the 'suchness', which really means the 'in-itselfness' of a thing, of the Tathāgata and his own are the same ; and then goes on to say that the 'suchness' of all substances is the same as that of the Tathāgata ; and is, therefore, like that of his, beyond all change

¹ *Aṣṭa.*, pp. 5 and 6.

² A rendering of the names of the *skandhas* into English always presents a difficulty, for they are used in various senses. Some of these have been noticed by Dr. E. J. Thomas in his *The Life of Buddha as Legend and History*, pp. 194–95.

³ *Aṣṭa.*, p. 10,

and variation, and also all-pervading.⁴ The identity of all ' suchness ' is asserted in the most unequivocal terms when it is said that : that which is the suchness of the Tathāgata ; and that which is the suchness of all the substances—these are one and the same suchness (*ekaivaisā tathatā*) which is non-dual (*advayā*), non-distinguishable as two (*advyaidhikārā*), not a suchness (*advaya-tathatā*) ; that suchness is not to be found anywhere (*na kvacit tathatā*) ; it is not from anywhere (*na kutaścit tathatā*), and it does not belong to anyone (*na kasyacit tathatā*).⁵

The doctrine of voidness is allied to that of suchness. It is dealt with in Chapter XVIII. In response to a request made by Subhūti to explain to him the profound doctrine, the Lord said that the profound (*gambhīram*) and voidness were identical, and that whatever was without sign (*animitta*), unthought (*apranihita*), devoid of dispositions (*anabhisaṃskāra*), unproduced (*anutpāda*), without birth (*ajātiḥ*) ; non-existent (*abhāva*) ; free from attachment (*virāga*), of the nature of restraint (*nirodha*), cessation (*nirvāṇa*), and the ultimate (*vigama*)—all that is the same as the profound. This profoundness, the Lord said, belongs to all things including the *skandhas*, and it appears from his description that it is the same as the suchness and voidness of things. For he said 'with regard to these, O Subhūti, according as there is the suchness of *rūpa* (*rūpa-tathatā*), so is there a profound *rūpa*, according as there is the suchness of *vedanā*, *saṃjñā* and *sam-skāras*, and as Subhūti, there is the suchness of *vijñāna*, so is there a profound *vijñāna*. O Subhūti, where there is no *rūpa*, that is the profoundness of *rūpa* ; where Subhūti, there is no *vedanā*, no *saṃjñā*, no *sam-skāra*, no *vijñāna*, there is the profoundness of *vedanā*, *saṃjñā*, *samskāras* and *vijñāna*. Having heard this discourse, Subhūti says : ' O Lord, it is wonderful that my attention has been turned away from the forms and substances (*rūpataśca nivāritah*) by a subtle method (*sūkṣmeṇo-pāyena*) and *nirvāṇa* has been taught to me (*nirvāṇam ca sūcītam*). Similarly, my attention has been withdrawn by a subtle method from *vedanā*, *saṃjñā*, *samskāras* and *vijnāna*, and *nirvāṇa* has been taught to me.⁶ Another passage, in the same chapter, which throws light upon the doctrine of voidness is as follows : ' The Lord said, O Subhūti, those things which are void are also without destruction (*akṣayāḥ*) ; that which is voidness is also immeasurability (*aprameyatā*) ; therefore, then, O Subhūti, there is not perceived any real distinction or plurality among these. These are mere (distinctions of) words—

⁴ *Aṣṭa.*, p. 307, ' *Yathāca tathāgata-tathatā* ' *vikārā*, *nirvikārā*, *avikalpā*, *nirvikalpā*, *na kvacit pratihanyate*, evam *survadharma-tathatā* *avikalpā*, *nirvikārā*, *avikalpā*, *nirvikalpā*, *na kvacit pratihanyate*.

⁵ *Ibid.*, p. 307.

⁶ *Ibid.*, pp. 341-42,

mere words as spoken by the Tathāgata : (that voidness is) ' that which cannot be measured, that which cannot be counted, that which is without destruction, that which is without cause, that which is beyond thought, etc.' Then it is further asserted that the character of all things is indescribable (*anabhilapyah*), for the voidness of them is indescribable.⁸ At the end of the discourse Subhūti asks : ' O Lord, what is this, again, the highest perfect knowledge (*anuttara samyak-sambodhiḥ*) ? ; and the Lord answers : ' Subhūti, it is this suchness which is the highest perfect knowledge. That suchness neither increases nor decreases ' .⁹

The larger and the smaller *Hṛdaya-Sūtras* and the *Vajra-cchedikā* are three other treatises of the *Pāramitā* class. The first two appear to be simply an abridgment of the doctrines of such bigger works as the *Aṣṭasāhasrikā*, and there is nothing new in them. In the *Vajra-cchedikā* we come across some remarkable passages about the nature of the Tathāgata and his teachings which distinctly show that the *Pāramitā* philosophy stands for the doctrine of an absolute existence, very similar to that of the *Upaniṣads* and the *Vedānta*. The Tathāgata is said to represent the suchness of things (*bhūta-tathatāyā etad adhvivacanam*), the nature of non-productiveness (*anutpāda-dharmatāyāḥ*); the cessation of form and substance (*dharma-cchedasya*) and that which is altogether unborn (*atyantānupannasya*). The Tathāgata is not to be supposed as having gone anywhere, nor as having come from anywhere. Finally, it is said that those who think that the Tathāgata can be seen by means of form (*rūpa*), or can be heard by means of sound, are engaged in a futile effort.¹⁰ It will appear that this description of the Tathāgata very nearly approaches the Vedāntic conception of the absolute self.

The following passage is another remarkable expression of a doctrine of absoluteness :—' And verily, again, O Subhūti, the *dharma* which has been discerned, taught and thought out by the Tathāgata, admits neither of truth nor falsehood (*na tatra satyam na mr̥ṣā*). It is like this, Subhūti, that just as a man immersed in darkness would not see anything, in the same way, should the Bodhisattva, immersed in reality (*vastu-patitah*), be looked upon, as one who gives away alms as one immersed in reality. And, O Subhūti, just as a man immersed in darkness would not see anything, in the same way, should the Bodhisattva, immersed in reality (*vastu-patitah*), be looked upon, as one who gives away alms as one immersed in reality. And

⁷ Cf. *Chhānd.*, vi, 1, 4–8.

⁸ *Aṣṭa.*, p. 348.

⁹ *Ibid.*, pp. 350–51.

¹⁰ *Vajra-cchedikā*, Max Müller's ed. Oxford, XVII, XIX, XXVI.

O Subhūti, just as a man with the eyes would see various kinds of forms on the passing away of night and the rising of the sun, in the same way should the Bodhisattva immersed in non-reality (*avastu-patitah*), be looked upon, as one who gives away alms as one immersed in non-reality.¹¹ The passage evidently contains the doctrine, according to which, reality-in-itself is an undifferentiated homogeneous absolute, a darkness in which all cows are black, as Hegel puts it, and this experience, according to the *Vajra-cchedikā*, one has when one is actually immersed in reality. The opposite of it is the world of plurality and heterogeneity, and it is so to one who is not immersed in reality. The real world of the wise man is compared to night, and the unreal world of the layman to the state of wakefulness.¹² That the universe is further regarded as an illusion, a passing phantom, is evident from the last verse of the *Vajra-cchedikā*, which has been translated by Max Müller as follows :—

‘ Stars, darkness, a lamp, a phantom, dew, a bubble ;
A dream, a flash of lightning, and a cloud—thus
We should look upon the world (all that was made).¹³

Now to sum up, it will appear from the various quotations given above that according to the Prajñā-pāramitās, (i) the suchness of things, that is, their intrinsic character (*tathatā*) is voidness (*śūnyatā*), and hence, all things of the world including consciousness (*citta*) and knowledge are devoid of the nature which they seem to possess (*Aṣṭa.*, I) ; (ii) the real nature of things is incomprehensible (*acintya*), for it is beyond the reach of the intellect (*Aṣṭa.*, XIII) ; (iii) suchness of things is an undifferentiated absolute existence (*Aṣṭa.*, XVI) ; (iv) suchness, voidness and profoundness are identical, and these constitute true or perfect knowledge, they are also indestructible (*akṣayāḥ*) and immeasurable (*aprameyāḥ*) ; the same are *nirvāṇa* ; everything else is a matter of mere verbal talk (*abhilapyāḥ*) (*Aṣṭa.*, XVIII). It must be clear from this description of voidness, suchness, or *nirvāṇa*, that they are not the name of non-being but of an absolute ultimate entity, which, in the *Vajra-cchedikā*, has even been identified with the Tathāgata, and hence there is no reason to call the philosophy of the Pāramitās nihilism or negativism. The doctrine of the illusory nature of the phenomenal world and the consequent denial of knowledge in the Pāramitās is essentially the same as the

¹¹ *Vajra-cched.*, XIV.

¹² Cf. The *Bhagavadgitā* :

“ Yā niśā sarva-bhūtānām tasyām jāgrati samyamī.
Tasyām jāgrati bhūtāni sā niśā paśyato munē. ”

¹³ *Tārakā timiram dīpo māyādvāśyābubudam,*
Swapnam ca vidyudabham ca evam draṣṭavyam saṃskṛtam.

Māyā and the *Avidyā* doctrine of the *Upaniṣads* and the *Vedānta*.¹⁴ The former reappears in a developed form in Nāgārjuna, and the latter in Gaudapāda and Śaṅkara.

¹⁴ It is usually maintained, and to a certain extent rightly too, that the conceptions of *Māyā* and *Avidyā*, as found in the earlier *Upaniṣads*, are different from those found later in Śaṅkara's *Vedānta*, but it has to be remembered that the idea underlying the use of those terms both in the *Upaniṣads* and the later *Vedānta*, viz., the illusory nature of the phenomenal world, is essentially the same. Further in some *Upaniṣads*, which are not very late after all and much prior to Śaṅkara, e.g., in the *Svetāśvatara*, *Māyā* is actually called *prakṛti*, which notion of *Māyā* would distinctly correspond to Śaṅkara's.

In an article on the *Philosophy of the Prajñā-pāramitā* (*J.B.T.S.*, iv, iii) Vidyābhūṣaṇa quotes certain passages which show that according to the *Prajñā-pāramitā* the appearance of the phenomenal world is due to a *Māyā* in the sense it is used in the *Upaniṣads*. The lord is said to have cited the example of a magician and to have declared that substances appear to have the various characteristics which they possess because of the character of *Māyā* ' *dharmātaiṣā sarvadharmaṇām māyādharmaṭām upādāya*' . Similarly *avidyā* has been described, in the Upaniṣadic sense, as that cognition which perceives things, which are not existent, as existent—*yathā Śāriputra na samvidyante tathā samvidyante evam avidyamānas tenocyante avidyeti*' . Unfortunately Vidyābhūṣaṇa did not say from which *Prajñā-pāramitā* he got these passages, and I have been unable to trace them to their source.

A DYNAMIC THEORY OF POPULATION

BY DR. H. C. SETH, M.A., PH.D. (LONDON)

IN static conditions of life the most desirable or the optimum population will be a fixed quantity. But the optimum in dynamic conditions of life will be a changing quantity. It will be a function of the improvement in man's knowledge about the forces of nature, which yield him wealth, and the improvement in the technique of production. Increase in population stands in two-fold relation in regard to dynamic conditions of life. In the first place, increasing population may be one of the efficient causes which may bring about progress in man's knowledge and technique of production. Secondly, increasing population may be necessary to bring about the fullest development and use of the advances made possible by the improving knowledge and technique. In the first case we are looking at human population as a consumer, in the second as a factor of production in social dynamics. Let us discuss these points a little more in detail.

Malthus, in spite of his conviction that most of the miseries and evils that prevail in the society are the result of the tendency of population to increase faster than food supply, could not fail to see the important part that an increasing pressure of population plays when looked at dynamically. He observes : " man as he really is, inert, sluggish and averse from labour, unless compelled by necessity, we may pronounce with certainty that the world would not have been peopled but for the superiority of the power of population to the means of subsistence". And with a complacent belief that ultimately good comes out of the evil, Malthus concludes that " It seems, however, every way probable, that even the acknowledged difficulties occasioned by the law of population, tend rather to promote, than impede the general purpose of Providence. They excite universal exertion, and contribute to that infinite variety of situations, and consequently of impressions, which seems upon the whole favourable to the growth of mind.¹"

In his second and subsequent edition of the *Essay* Malthus dropped much of this cosmology and the theory of evil, but he continued to insist on the beneficial effects of the increasing pressure of population. " We cannot but conceive that it is an object of the Creator that the earth should be replenished ; and it appears to me clear that this could not be effected without a tendency in population to increase faster than food ; and as with the present

¹ Malthus' *First Essay on Population* (Edited by Bonar), p. 361 ff.

law of increase, the peopling of the earth does not proceed very rapidly, we have undoubtedly some reason to believe that this law is not too powerful for its apparent object. The desire of the means of subsistence would be comparatively confined in its effects and would fail of producing that general activity so necessary to the improvement of the human faculties, were it not for the strong and universal effort of population to increase with great rapidity than its supplies."²

It is not, therefore, surprising that Malthus foresaw and emphasised the dangers of artificial birth control, which are actually facing to-day countries like England and France. As he remarks, "If it were possible for each married couple to limit by a wish the number of their children, there is certainly reason to fear that the indolence of the human race would be very greatly increased, and that neither the population of individual countries nor of the whole earth would ever reach its natural and proper extent."³

Looked at historically we find that the pressure of increasing population provided one of the greatest urges for the original expansion and diffusion of every people. It compelled them to change their predatory habits, settle down and more fully develop the resources of the places they came to inhabit. The necessity for providing for larger numbers required, both on the part of the families as well as the whole group, greater intelligence and ingenuity of contrivance for winning the product which nature yielded for man's livelihood. Canan correctly points out, "The tribes or peoples who had sufficient energy and skill to take better care of their children than the others would, of course, increase in numbers relatively to the others as well as absolutely. But this greater will and capacity for tending their offspring would be likely to be accompanied by greater energy and capacity in other directions : those whose numbers become a larger proportion of the whole would be also those who could best utilise all opportunities of planting out additions to the human race either by intenser cultivation of already occupied territory, or by pioneer occupation of territory which before was lying either entirely waste or only slightly used. Whatever doubts we may have about the Israelites taking possession of Canaan we can have none about the Europeans who took what is now the United States and Canada. On the whole we may be sure that the peoples which increased relatively, because they were more capable of caring for their offspring, were just the peoples which could increase without any diminution, but rather with an increase of productivity on the part not only of themselves but of the world at large."⁴

² *Essay on the Principle of Population* (8th edition), p. 395.

³ *Essay Appendix* (8th edition), p. 512.

⁴ *Review of Economic Theory*, p. 87.

Past history points to the following important sociological truth : An increasing pressure of population provides a strong urge for expansion and improvement. This dynamic influence will be lacking in a stationary and declining population, which ultimately may be dominated and even supplanted by a people amongst whom the increased difficulty of getting a living, resulting from the increasing pressure of population, stimulates greater activity. Japan, Italy and Germany to-day provide the illustration of the above truth. Their expanding population, contrasted with the stationary or declining population of countries like England and France, is one of the most significant facts of modern times. The tremendous struggle towards which they are heading may bring them out triumphant or may even worsen them, but if their populations were stationary or declining, their impulse to challenge the existing political and economic arrangements would have been lacking.

Looked at as a factor of production, there is no doubt, that increasing population for certain periods in the history of every rising people is economically advantageous, as it is accompanied by increased productive powers. The economic advantages of an increasing population in such circumstances may be summed up as follows :—

(1) A denser population makes possible a better division of labour and more intensive exploitation of the resources. This brings about a proportionately larger productivity per head and improved standard of life.

(2) The expansion of population over a larger area has the same effects as the above. Various means of transport can be more easily developed and the greater exchange of goods between distant places, which they encourage, enables each area to devote itself more thoroughly to the production of those things for which it is best suited. Thus every economic integration of a larger and larger territory increases the population-bearing capacity of the integrated unit. Even the growth of international commerce has the same effect of bringing about the economic integration of larger units. The loss of life in famines of old was due more to the lack of means of transport, and, as has been the experience in India, thousands of people died of starvation in one province, even when there was superfluous produce in another. The main difficulty was of the lack of easy transport, and not excessive population.

(3) Dense population encourages and facilitates the full use of many scientific inventions. It can never be profitable to extend the electric service to a thinly populated area. As a matter of fact, the success of mass production in manufacture has depended to a great extent on a dense

population, both for the various economies of production and of sale. Increasing density of population also encourages more intensive cultivation, which greatly increases the amount as well as the variety of agricultural products.

Marshall rightly remarks " Ricardo and the economists of his time generally were too hasty in deducing their inferences from the law of diminishing returns ; and they did not allow enough for the increase of strength that comes from organisation. But in fact every farmer is aided by the presence of neighbours whether agriculturists or townspeople. Even if most of them are engaged like himself in agriculture, they gradually supply him with good roads, and means of communication. They give him a market in which he can buy at reasonable terms what he wants, necessaries, comforts, and luxuries, for himself and his family, and all the various requisites of his farm work ; they surround him with knowledge, medical aid, instruction and amusement are brought to his door, his mind becomes wider and his efficiency is in many ways increased. And if the neighbouring market town expands into a large industrial centre, his gain is much greater. All his product is worth more ; some things which he used to throw away fetch a good price. He finds new openings in dairy farming and market gardening, and with a larger range of produce he makes use of rotations that keeps his land always active without denuding it of any one of the elements that are necessary for its fertility. "⁵

Few writers have denied these economic advantages of the increase of population in the earlier stages of the development of a society. But it has been often assumed that the limits of the beneficial increase are marked very soon. This was the belief on which the Malthus-Ricardian theory of population was based. Even Mill, who witnessed very far-reaching changes in the method of production, thought that " The density of population necessary to enable mankind to obtain, in the greatest degree, all the advantages both of co-operation and of social intercourse, has, in all the most populous countries been attained. "⁶ Every age seemed to have held the belief that the limit of human ingenuity in tackling the forces of nature to win his

⁵ Marshall, *Principles of Economics*, Bk. I, Ch. IV, Sec. 2.

The early American writers invariably emphasised greatly the advantages of increasing population.

Everett (*New Ideas on Population*, 1823) argued that an increase of population causes abundance and not scarcity. It develops new elements of skill which enables the same quantity of labour to produce greater wealth.

Carey is even more emphatic in showing how rapidly wealth increases with every increase of population (see his *Principles of Economics* and also *Principles of Social Science*).

⁶ *Principles*, IV, VI, 2.

livelihood has been reached in its own times. But so often the next age had opened new and undreamt of possibilities.

How far a given population may advantageously increase further, will depend on the reply to the following questions:—

- (a) How much undeveloped territory is there yet available?
- (b) Has all the inhabited area been brought up to the highest level of development made possible by the existing human knowledge about the forces of nature and the improvement in the productive technique?
- (c) Is further increase in the knowledge of the forces of nature likely to add to the productive efficiency of man, and make increasing population an important factor in the fuller development of the resources?

If we were to put these questions to-day, our reply to the first two will largely depend on the fact whether we are taking into consideration different countries as independent units, or the world as a unit. There is no doubt that parts of Asia and Europe have great local congestion of population. Against this a greater part of the rest of the world is under-developed and under-populated, as judged from the more efficient of the contemporary standards of production.

As regards the third question, *i.e.*, the ultimate limits of human knowledge and therefore, of the ultimate capacity of a country, or of the world as a whole, to maintain population, the answer will be highly speculative. It will largely depend on the view one takes regarding the possibility of further increase in human knowledge about the forces of nature, and of human ingenuity in making practical use of these, whether such increases in future are likely to be great, or that the limits of such increases have already been reached, and further improvements will be of a minor character only. A belief of the latter type seems to have inspired the alarming forecasts that have so often been made about the approaching end of the world's resources and the future of man.

One reads to-day with amusement the alarm raised by Jevons about the possible exhaustion of the coal supply, as if we are drawing more and more upon a capital which yields no annual interest, and once turned into light, heat and motive power, it is gone forever into space.⁷ As if, as Prof. Soddy remarks, there has been "no stable or enduring development, but rather the accelerating progress of the spendthrift to destruction, so soon as

⁷ *The Coal Question*, by W. S. Jevons.

the inheritance had been squandered and the inevitable day of reckoning arrived. When coal and oil were exhausted, and the daily modicum of sunlight represented once again as of yore, the whole precarious means of livelihood of the world, the new inanimate servant of science, like the slaves of the ancients would prove a dangerous helpmate, and the mushroom civilization it had engendered would dissolve, like the historic empires of the past, this time submerging the world.⁸ Little could Jevons anticipate that electricity would prove a far more powerful force than steam, an ever-enduring helpmate of man and obtained at almost a nominal cost, particularly in countries with rapidly running currents of water. This energy which until so recently ran to waste is now being utilised in so many different ways for domestic, industrial and transport purposes.

Crookes⁹ raised even a more serious alarm than Jevons. "England and all civilized nations stand in deadly peril of not having enough to eat. As mouths multiply, food resources dwindle. Land is a limited quantity, and the land that will grow wheat is absolutely dependent on difficult and capricious natural phenomena. I am constrained to show that our wheat-producing soil is totally unequal to the strain put upon it. The world's demand for wheat—the leading bread stuff—increases in a crescendo ratio year by year. Gradually all the wheat-bearing land on the globe is appropriated to wheat-growing, until we are within measurable distances of using the last available acre. We must then rely on nitrogenous manures to increase the fertility of the land under wheat, so as to raise the yield from the world's low average—12·7 bushels per acre—to a higher average. To do this efficiently, and feed the bread eaters for a few years, will exhaust all the available store of nitrate of soda. For years past we have been spending fixed nitrogen at a culpably extravagant rate, needless of the fact that it is fixed with extreme slowness and difficulty, which its liberation in the free state takes place always with rapidity, and sometimes with explosive violence."

But in the same breath Sir William allayed all the alarm that he raised. "There is a gleam of light amid this darkness of despondency. In its free state nitrogen is one of the most abundant and pervading bodies on the face of the earth. Every square yard of the earth's surface has nitrogen gas pressing down on it to the extent of about seven tons—but this is in the free state, and wheat demands it fixed.....

"The fixation of atmospheric nitrogen therefore is one of the great discoveries awaiting the ingenuity of the chemist." "Nitrate can be

⁸ *Science and Life*, by Soddy, p. 14.

⁹ *The Wheat Problem*, by Sir William Crookes, 1899 (John Murray, London).

produced artificially by the combustion of the atmosphere. Here we come to finality in one direction ; our stores are inexhaustible. But how about electricity ? Can we generate enough energy to produce 12,000,000 tons of nitrate of soda annually ? A preliminary calculation shows that there need be no fear on that score ; Niagara alone is capable of supplying the required electric energy without much lessening its mighty flow.¹⁰

And the alarmist in Sir William ends in the greatest optimistic notes. "The future can take care of itself. The artificial production of nitrate is clearly within view, and by its aid, the land devoted to wheat can be brought up to the 30 bushels per acre standard. In days to come, when the demand may again overtake supply, we may safely leave our successors to grapple with the stupendous food problem."¹¹

Nitrogen fixation from the atmosphere is now a commercially successful proposition, and one is inclined to agree with Crookes that "Nature's resources, properly utilised, are ample....Instead of being satisfied with an average world yield of 12.7 bushels an acre, a moderate dressing of chemical manure would pull up the average to 20 bushels."¹²

More recently Prof. East has made alarming forecasts of the very near approach of the world's population-bearing capacity in terms of food. Prof. East assumes that "Under the most optimistic assumptions as to production and distribution of food that it is reasonable to make, the world can support but 5,200 millions of people ; and these people must content themselves with the limited dietary and the few material necessities which form the current standards among the peasantry of Europe. Further more, if the present rate of increase would continue unabated, babies now alive would live to see this event come to pass. The world would be filled with people without faith or hope, a seething mass of discontented humanity struggling for mere existence, within the span of a single life-time."¹³

He arrives at 5,200 millions as the world population saturation point on the assumption that about 40 per cent. of the total area of the land surface is cultivable. Therefore, of the total land area of the world which, excluding the Artics, is 33,000 million acres, only 13,000 million acres are available for cultivation. Taking the "agricultural production equivalent to a return

¹⁰ He rightly remarked : " Electricity from coal and steam engines is too costly for large industrial purposes ; at Niagara, where water power is used, electricity can be sold at a profit for one-seventeenth of a penny per Board of Trade unit." (*Wheat Problem*, p. 4.)

¹¹ *Wheat Problem*, p. 43.

¹² *Ibid.*, Preface p. vi.

¹³ *Mankind at the Cross Roads*, by E. M. East, 1923, p. 69 (Charles Scribner's).

per acre midway between the average and the best in the world to-day, and a standard of living on a parity with what is found in the more densely populated countries of Europe, this study has led to the conclusion that a reasonable maximum for the world's future population is one person for each 2.5 acres on 40 per cent. of the land area of the globe. This gives a figure of 5,200 million, a population which at the present rate of increase would be reached in just a little over a century.¹⁴

Prof. East admits that "The number of people this huge world farm can support will vary with the progress of the art of agriculture, with the provision for transportation and for storage, with the security of property, with the efficiency of human effort, with the type and the amount of food consumed *per capita*, and with the margin of safety necessary to tide over the years when the crops are poor".¹⁵ He even realises that judged from the current standard of production there may be very great under-production in the various parts of the world. As he remarks, "In fact Russia, Bulgaria, Rumania and Servia, just before the War were more nearly in the condition of the United States about 1880. They were importing farm machinery, and by utilising it to increase the amount of land tilled per man have become food-exporting countries. This was particularly true of Russia. Russia had large quantities of land, and by her old methods had not been able to cultivate it. But by utilising the results of industrial progress in other countries she was having a great agricultural boon. Her population was increasing rapidly in consequence. The annual excess of births over deaths varied from 16 to 18 per thousand, yet even this rapid population expansion had not kept pace with the increase in production. Although the other countries mentioned had not Russia's proportion of unused land, they also were able to increase their production by modern methods to an extent they had not dreamed of half a century before. Population was increasing marvellously, but as yet it had not been able to overtake production. In spite of such facts, there was subsistence pressure in all of these countries. They lacked cheap means of transportation and storage, and their Governments were such that a larger proportion of the people was struggling in the midst of plenty to make both ends meet. Nevertheless the world was by way of seeing a continuous increase of population in these countries, and at the same time a bettering of conditions of living when the war broke out."¹⁶

¹⁴ *Mankind at the Cross Roads*, p. 69.

The current rate of growth is assumed by Prof. East as doubling of the population in every 60 years.

¹⁵ *Ibid.*, p. 69.

¹⁶ *Ibid.*, p. 82,

But Prof. East grows apprehensive about the period, when the improved agricultural methods of to-day are adopted all over the world, and the territories now so thinly populated are fully filled in and have to take care of their own increasing numbers. As he remarks, "The fertile portions of temperate Asia and the major part of Europe are already over-populated when measured by the present standard of agriculture. They have become over-populated and remain over-populated largely because the Western Hemisphere, Africa and Australia are under-populated and can ship them food. But North America is entering the stage when exportation of food is no longer possible; Australia will reach the stage within a few decades, and temperate South America will follow Australia before the present generation passes on. Thus within half a century presumably, within a century certainly, each country must prepare to live upon the fruits of its own agricultural efforts. And colonisation and development of the tropics will not save the situation, or even delay this day. The difficulties to be surmounted in conquering them will make the work go slowly and they will be able to take care only of their own increasing numbers." Eventually in these circumstances, "Growth can be maintained only at a rate which parallels the enhancement of crop yields through plant-breeding, pest control, and scientific agronomy, a snail-like progress at best. Those who cherish the hope of a sudden extension of the allowance Mother Nature grants her children, when this time comes, are likely to be disappointed. There is no indication either in physics, chemistry, or the natural sciences of agriculture being able to profit by such radical changes as have occurred in mechanics.¹⁷

It is quite clear that Prof. East's estimate of 5,200 millions as the world's limit of population capacity, which can be reached in no time, is based on the assumption that the improved standards of production prevailing to-day, remain the same. As soon as we admit that there may be possibility of radical and far-reaching improvements in the methods of production, very different figures are arrived at. Sir George Knibbs, who also shares the belief of Prof. East that at the present rate of increase the world's limit of population-bearing capacity will be reached much sooner than is generally imagined, gives much higher figures for the ultimate limits of world-population. As he remarks "allowing for the extension of agricultural areas and some advances in agricultural and general industrial technique, say 7,000; allowing for scientific advances more fully—this of course, is somewhat conjectural—say 9,000; and finally allowing for the fullest possible migration and the appropriate co-ordination of all human

¹⁷ *Mankind at the Cross Roads*, pp. 344-45,

effort, and with the complete elimination of the jeopardy of war, so that all effort would be directed to the maintenance of human beings, say 11,000 millions. These numbers are of course subject to a considerable measure of uncertainty."¹⁸

Criticising Prof. East's views Sir George Knibbs correctly observes, "When one knows something of the world's surface and of its peoples, and finds it possible for a country like Switzerland to carry a population of 247 to the square mile, while a country like the United States of America is carrying only 39, being told also by certain special and able students that it can never carry more than 66 to the square mile,¹⁹ one realises how superficial are some of the studies of the world's possibilities. The data do not yet exist by means of which a really exhaustive estimate can be made of the world's population-limits, as things are at present, nor as they are likely to be. But we do know enough to affirm with confidence, that the fear that a country with immense resources can carry only 66 to the square mile is created by too narrow a view of the problem in hand. No sufficient account has been taken of the standard of living assumed to be essential, nor of the fact that the theory leading to this estimate is based upon merely temporary, undeveloped and unessential conditions."²⁰

So far as population is a function of the development of human knowledge about the forces of nature and their proper utilisation, no limits could be suggested for the latter, nor therefore, for the former. The whole history of the development of human knowledge and the productive power derived therefrom, seems to justify this faith in the possibilities of even much greater increase of these in the future;²¹ and, as of old, increasing population may provide an important dynamic urge for further achievements in these directions. But as the world gets more fully peopled the rate of increase will have to be slow. How quickly the overcrowding even of the world as a whole may come about can be easily seen by taking note of the potentialities of the increase of population. Even at a moderate rate of increase of

¹⁸ *The Shadow of the World's Future*, p. 70.

¹⁹ Compare England's density which is about 632 per square mile.

²⁰ *The Shadow of the World's Future*, pp. 120-26.

²¹ Compare the following remark of Prof. Soddy, "Primitive man froze on the site of what are now coal mines and starved within the sound of waterfalls that now are working to provide our food. The energy was then, the knowledge to utilise it was not. So while we are leading cramped lives and fighting among ourselves, whether in peace or war, for a modicum of the means of existence, science tells us that, in the commonest material that make up the framework of the world, there is energy of a magnitude of which we have no experience and the means of livelihood upon a scale of which we have no standard. The energy is there. The knowledge that can utilise it is not—not yet," (*Science and Life*, p. 33.)

one per cent. per annum, which means doubling in roughly about seventy years, the present world population which is about 2,000 millions, will reach the staggering figure of over 120,000 millions in less than four centuries.

This brings us to the inevitability of the need for deliberate control, sooner or later, of world population, even when it is assumed to be thoroughly organised as one great economic unit. It is difficult to share the belief of Spencer, Bagehot and others that when this time arrives the rate of the growth of population would adjust itself to changed circumstances through a fall in the birth-rate resulting from physiological changes in man. Control of population, whether exercised in the interest of a particular country or the world as a whole, should be such as it may not, in the first place, bring down the quality of the race through differential fertility in favour of the inferior stock, and secondly, it should permit of a certain increase of population. The rate of increase will have to be lowered as the population increases.

THE RISE OF THE HOYASALAS

BY SANT LAL KATARE, Esq., M.A.

THE Hoyasalas rose to power in the southern part of the Deccan in the beginning of the eleventh century and continued to rule till the middle of the fourteenth century.

Origin.—In keeping with the traditions of the time the Hoyasalas, in their inscriptions, claim a mythological origin for their family. They record that "from Brahmā was Atri, from him Soma, from him Purūrava, from him Ayu, from him Nahuṣa, from him Yadu, in whose line was Saṭa".¹ On the basis of this and such other legends they style themselves as "*Yādava-kula-tilaka*," "*Yādava-kulāmbara-dyumāṇi*" and "*Dvārāvatīpuravarādhīśvara*," i.e., "lord of Dvārāvati, the best of cities," and call themselves the Kṣatriyas of the lunar race.² The city of *Dvārāvati* is identified with the *Dvārāvati*, the legendary city of Kṛṣṇa and the original seat of the Yādavas, which, as the traditions go, was washed away by the sea. The mythological origin cannot stand the test of historical criticism ; hence, it is to be rejected.

Saṭa is considered as the progenitor of the Hoyasaṭa family and the following story, with little variation, is recorded in their inscriptions. The story runs that Saṭa was once hunting in the Sahaya mountains. At that time a Muni was performing his religious rites in the temple of the goddess Vāsantikā at Śaśakapura. Suddenly a tiger appeared and the Muni called out "Strike Saṭa" (Poyasaṭa). Saṭa immediately killed the tiger by a cane or rod and became Poyasaṭa. An inscription states that the tiger was pursuing a hare and Saṭa killed it at the order of the Muni. Other inscriptions record that the Muni wanted to test the bravery of Saṭa and one even states that he wanted to give him (Saṭa) a kingdom, "pleased with him when he prostrated in devotion, before him". The *Yogi* then was performing the necessary rites before Vāsantikādevī to obtain a kingdom for Saṭa, when the goddess in the form of a tiger sprang upon him. At this the ascetic called out "Strike Saṭa" (Poyasaṭa) and Saṭa killed the tiger.³ As a result of this incident Saṭa adopted the name Poyasaṭa, which later on changed to Hoyasaṭa.

¹ *Epigraphia Carnatica*, Vol. V, Bl. Nos. 58, 124, 71 ; Ak. No. 71.

² *Ibid.*, Ak. No. 62.

³ *Ibid.*, Vol. VI, Cm. Nos. 20, 137 ; III, Md. No. 121 ; V, Bl. Nos. 171, 112, 74 ; Ak. Nos. 71, 82, 108 ; Hn. No. 65.

The slopes of the Sahaya mountains are identified with the hills of the Western Ghats and Śaśakapura with modern Angadi in the Mudgere *tāluka* of the Kadur District in the Mysore State.⁴ The temple of Vāsantikādevī is still represented by the temple of Vāsantammā and enjoys great reverence and reputation among the people of that part of the country. Besides this, ruins of many temples can still be seen there which indicate that the place had considerable religious significance in those days.⁵ From this evidence it seems quite probable that Saṭa was an adventurer, probably a hunter, and lived in the hills of the Western Ghats. The hills then were occupied by the wild tribe known as the Mālepas in Indian History. They led frequent incursions in the neighbouring country for stealing cows; and often they outraged the modesty of young girls.⁶ Saṭa, probably, belonged to the stock of the hill-tribe, the Mālepas.⁷ This suggestion is further supported by the fact that the Hoyasalas adopted the title Mālaprolganda, 'the champion among the Mālepas' and are referred to as the Rājā of the Mālerāja.⁸ Vinayāditya is called the king of the hill kings⁹ and an inscription records that "the sons of the hill kings rose, came and placed their heads at his lotus feet".¹⁰ There is yet another version of his rise to power. According to this, Saṭa killed a tiger who was ravaging the surrounding country and killing the cows. For this service he was permitted to collect an annual tax. With the help of the produce of this tax, he is said to have collected a small force and established himself at Śaśakapura.

Saṭa.—Saṭa is often considered as a mythological personage by scholars, but the facts stated below clearly indicate that he was a real historical personage. The name Poyasaṭa was conferred upon him by the Muni. Saṭa or Poyasaṭa has been distinguished from the Hoyasaṭa Nṛpakāma. Scholars think that Nṛpakāma was the first historical personage of the family, but a close study of the inscriptions reveals that Saṭa and Nṛpakāma are identical. An inscription of the Kongālava-Coṭa states that he marched against and defeated the base Poyasaṭa in 1026 A.D.;¹¹ another inscription dated 1022 A.D.¹² records that Kannama made war on Nṛpakāma Poyasaṭa, while a third records the name Nṛpakāma only.¹³ Yet another inscription

⁴ *Epigraphia Carnatica*, Vol. VI, Mg. Nos. 9, 15, 16, 18; Intr., p. 14.

⁵ *Ibid.*, Intr., p. 14.

⁶ Saletor, *Wild Tribes in Indian History*, p. 60 f., 79 f.

⁷ *Epigraphia Carnatica*, Vol. I, Intr., pp. 11, 14.

⁸ *Ibid.*, Vol. II, No. 132; Vol. V, Bl. No. 199.

⁹ *Ibid.*, Vol. II, No. 143.

¹⁰ *Ibid.*, Vol. V, Bl. No. 58.

¹¹ *Ibid.*, Vol. V, Mj. No. 76.

¹² *Ibid.*, Mj. No. 48.

¹³ *Ibid.*, No. 44.

dated 1006 A.D. states that a minister of the Poyasaļa was defeated.¹⁴ Thus in these inscriptions one records the name Poyasaļa, another Nṛpakāma, and a third Nṛpakāma Poyasaļa. On the basis of this evidence the conclusion that Poyasaļa and Nṛpakāma were the names of the same person is irresistible. Further on Vinayāditya is mentioned as the son of Saļa and Nṛpakāma both. The Hosakalyādi inscription dated 1162 A.D. states that Vinayāditya was the son (*ātana-tanaya*) of Nṛpakāma.¹⁵ The Karugunḍa inscription dated 1159 A.D. records the same fact and gives him the title Mahāmaṇḍaleśvara.¹⁶ Another inscription at the same place dated 1162 A.D. records that Viṣṇuvardhana was the son of the son of Nṛpakāma.¹⁷ These inscriptions do not mention the name of Saļa at all; they begin with the name Nṛpakāma only. One inscription records that "from that Hoyasaļa was born Vinayāditya".¹⁸ On the other hand, in a number of inscriptions Vinayāditya is referred to as the son of Saļa,¹⁹ and in one as the eldest son.²⁰ The name of his wife was Bhūmidevi.²¹

Saļa Nṛpakāma had to encounter the opposition of the Coļa-Kongāļavas from the very beginning. The Kaliyur inscription records the earliest known date for the Hoyasaļas in the year Śaka 929, *Parābhava S. caitra Ba. 5, Ādivāra = 1006 A.D.*²² The inscription further states that Aprameya, lord of Koṭṭamāṇḍala and a general of the Coļa Rājarājadeva, defeated the Hoyasaļa general Nāgaṇṇa in a battle fought at Kalevūr, near Talekād on the southern bank of the river Kāveri.²³ Aprameya won an overwhelming victory and the Hoyasaļa general Manjaga, Kaļige or Kaļi-Gaṅga, Nāgavarmma and others were killed.²⁴ It seems that the Hoyasaļa Nṛpakāma sent an expedition to raid the Coļa country, but it was driven away with much slaughter. The Kongāļavas, who were the feudatory of the Coļas, were also fighting against the Hoyasaļas. Their principality comprised of a small strip of territory between the rivers Kāveri and Hemāvatī,²⁵ and the Hoyasaļa territory lay in the south of the river Kāveri.²⁶ Their interests were sure

¹⁴ *Epigraphia Carnatica*, Vol. III, Tr. No. 44.

¹⁵ *Ibid.*, Vol. V, Ak. No. 157.

¹⁶ *Ibid.*, Ak. No. 141.

¹⁷ *Ibid.*, Ak. No. 142.

¹⁸ *Mysore Archaeological Survey Reports*, 1923, p. 35.

¹⁹ *Epigraphia Carnatica*, Vol. IV, Ng. No. 20; Vol. V, Bl. No. 74, Ak. Nos. 142, 157; Vol. VI, Cm. No. 207.

²⁰ *Ibid.*, Vol. V, Cm. No. 20.

²¹ *Ibid.*, Vol. XII, Tp. No. 42.

²² *Ibid.*, Vol. II, Tn. No. 44.

²³ *The Historical Inscriptions of Southern India*, p. 57.

²⁴ *Epigraphia Carnatica*, Vol. III, Tn. No. 44.

²⁵ *Ibid.*, Vol. V, Ag. No. 99, Intro., p. VII.

²⁶ *Ibid.*, Vol. II, Tn. No. 44.

to clash. In 1022 A.D. the Coḷa-Kongālava Rājendra sent his general Kannama against the Hoyasala Nṛpakāma and a battle was fought between the two forces. Jogayya, a general of Nṛpakāma, attacked Kannama and pierced him, but he was also killed later on. The invaders seem to have been driven away.²⁷ In 1026 A.D. the hostilities were again resumed. An inscription of the Coḷa-Kongālava Rājendra dated 1026 A.D. records that he attacked the base Poyasala, i.e., Nṛpakāma and defeated him in a battle fought at Maṇṇi.²⁸ In 1027 A.D. Nṛpakāma was again attacked by a force sent, probably, by the Kongālavas and in the battle Maraja, son of Kāleyabbe, was killed.²⁹ The *Uggihāli* inscription dated in the seventh year of the reign of Nṛpakāma gives him the title *Racamalla-Vermadi* (*Permmadi*), a title often borne by the Gaṅga kings.³⁰ This would certainly suggest some affinity of the Hoyasala Nṛpakāma with the Gaṅgas. The known dates of Saṅga Nṛpakāma are 1006 and 1027 A.D., but one inscription may suggest 1040 A.D.³¹ also, which may be taken as his last date.

Vinayāditya.—Saṅga Nṛpakāma Poyasala was succeeded by his son Vinayāditya sometime about 1040 A.D. He was born at Śaśakapura.³² His earliest known date as recorded in two inscriptions is Śaka 969, *Sarvajita S. Phālguna Su. 3, Somavāra* = Monday February 2, 1047 A.D.³³ and it may be tentatively assumed that Vinayāditya commenced his reign in about 1040 A.D. Vinayāditya is also referred to as *Benayāditya*, *Binayāyta*, *Vinayāyta*, *Vinayārkkha* and *Bittiga* in the inscriptions. He had the subordinate title of *Mahāmaṇḍaleśvara* and adopted the *biruda Tribhuvanamalla* and *Trailokyamalla*. He was also known as *Vira Gaṅga Poyasala*. The name of his queen was Kāleyabbarasi, who is styled as the chief queen.

Saṅga Nṛpakāma had laid the foundation of the Hoyasala kingdom. He had established his control over the Mudgere *tāluka* of the Kadur

²⁷ *Epigraphia Carnatica*, Vol. V, Mj. No. 43.

²⁸ *Ibid.*, Vol. V, Ag. No. 76.

²⁹ *Ibid.*, Md. No. 18.

³⁰ *Ibid.*, Vol. VI, Tn. No. 19.

³¹ *Ibid.*, Md. No. 18.

³² *Ibid.*, Vol. VI, Md. Nos. 9, 15, 18; Rice, *Mysore and Coorg from Inscriptions*, p. 94.

³³ *Epigraphia Carnatica*, Vol. IV, Ng. No. 32; Vol. VI, Cm. No. 180, Ng. No. 32 give the year as Śaka 967, but this seems to be a mistake for 969. In 967 *Sarvajita S.* had not begun, but the *Pingala* was current. One inscription records the date in V. S. 1070=1013 A.D. (*Epigraphia Carnatica*, Vol. VI, Cm. No. 38), but this does not seem to be consistent. The above two inscriptions do not belong to the reign of Vinayāditya but are of later date. The earliest inscription of his reign bears the date in Śaka 924, *Jaya S. Caitra Su. 10* = Saturday, March 11, 1055 A.D. (*Epigraphia Carnatica*, Vol. VI, Md. No. 19) but here Śaka 924 is wrong, it should be Śaka 977.

District of the Mysore State in spite of the Coḷa-Kongālava opposition. It was for his successors to maintain and expand the territory they had inherited.

A brief survey of the political condition of the Deccan is necessary before giving the details of the further Hoyasāla expansion. The Cālukyas had come into power in 973 A.D. and they were opposed by the Gaṅgas and the Coḷas. The Cālukya Taila II (973–997 A.D.) was successful in defeating them both. The Coḷas were making a hard struggle to extend their territory towards the north. Rājendra Coḷa once again invaded the Cālukya kingdom, but was driven away by Satyāśraya, successor of Taila II. Before this invasion they had captured Talekād, the capital of the Gaṅgas and all the vestiges of the Ganga Imperialism were wiped out. The Gaṅgas had to take shelter under the Cālukyas. The Coḷas continued their struggle with the Cālukyas. Ultimately the Cālukya Jayasimha (1015–1042 A.D.) defeated Rājarāja, and the Gaṅgavādi 96000 province was incorporated in the Cālukya dominions.³⁴

During this political turmoil the Hoyasālas got their opportunity. The fall of the Gaṅgas provided them with a good field for territorial acquisitions. The Coḷa-Kongālava opposition seems to have lost its force because of the defeats of the Coḷas at the hands of the Cālukya Jayasimha in 1018 and 1024 A.D.,³⁵ but their difficulties were not over. They were now threatened by the Cālukyas who had no friendly scruples towards them. The Cālukya Jayasimha sent his general Cāvanarasa to curb the power of this newly rising family. Cāvanarasa attacked 'Dorā' and captured it. The Cālukya general boasts himself as "the shatterer of Dorā".³⁶ It seems that the Hoyasālas acknowledged the supremacy of the Cālukyas and were allowed to govern as feudatories. This also indicates that the Hoyasālas had established themselves in the city of Dvārasamudra. Vinayāditya had also to face the opposition of the hill tribe, the Mālepas. Their chief occupation was to carry raids into the neighbouring country and the Coḷas, the Gaṅgas and the Cālukyas had to fight against them.³⁷ It was not possible for the Hoyasālas to establish their power firmly unless the Mālepas, his own people, were brought into submission. Vinayāditya subjugated them and adopted the title "champion among the Mālepas (Māleprol gandam)."³⁸ Whatever the earliest date of victory over the Mālepas may be the Beṇūr inscription dated

³⁴ Author's *History of the Deccan* (to be published), Chapter III.

³⁵ *Ibid.*

³⁶ *Epigraphia Indica*, Vol. VI, p. 80.

³⁷ Dr. Saletor, *Wild Tribes in Indian History*, p. 79 f.

³⁸ *Epigraphia Carnatica*, Vol. V, Ak. No. 186; Cm. No. 207; Vol. IV, Kp. No. 49; Vol. XII, Tp. No. 105.

1062 A.D. records that " Vinayāditya along with his son prince Ereyanga-deva was protecting the Māle country and others forming the Gaṅgamandala 96000 under the shadow of his sole umbrella ".³⁹ Other inscriptions of later date confirm this statement.⁴⁰ The Mālepas acknowledged the sovereignty of Vinayāditya and his attitude is said to have become friendly towards them, but in case of opposition his treatment was very severe. An inscription records that " on the heads of the Mālepas who, growing proud, opposed him, he lays his sword ; on the heads of the Mālepas, who filled with fear do not grow proud or oppose him, he at once lays his hand ".⁴¹

Marriage Alliance with the Cālukyas.—The suppression of the Mālepas put the Hoyasalas in a very secure position and they were left free to look after the interests of their principality. They were also in a favourable position to make fresh territorial acquisition, but it involved the danger of hostility with the powerful families of the Coṭas and the Cālukyas. This was tantamount to a political suicide. Knowing full well the magnitude of this danger the Hoyasalas played their game. The Coṭas and the Cālukyas were fighting over the ashes of the Gaṅga Imperialism. The Coṭas were also in hostile relations with the Hoyasalas. The Hoyasalas threw their lot with the Cālukyas who could be their only possible allies. With their help they expected to face the Coṭa menace and gain certain territorial advantages in the former Gaṅga dominions. A princess of their house was given in marriage to the Cālukya Someśvara I (1042-1068 A.D.). An inscription dated 1055 A.D. records the grant of some land to a temple by the senior queen Hoyasañadevi, 'reposing on the broad chest of Trailokyamalla',⁴² i.e., the Cālukya Someśvara I. The exact relationship of Hoyasañadevi with Vinayāditya cannot be determined, but her name suggests that she belonged to the house of the Hoyasalas.

With this alliance all fears of Cālukya opposition vanished away, and they were ensured of their help in case of the Coṭa aggression. After the death of the Cālukya Someśvara, the fratricidal war broke out between his two sons, Someśvara II and Vikramāditya (VI); the latter retired to the south and declared independence. The Hoyasalas in the beginning remained loyal to Someśvara II, but later on turned against him and joined the camp of his rebel brother. Ereyanga, son of Vinayāditya, helped Vikramāditya in overthrowing his brother. An inscription dated C.V. 25 = 1001 A.D.

³⁹ *Epigraphia Carnatica*, Vol. VI, Kd. No. 161.

⁴⁰ *The Mysore Archaeological Survey Reports*, 1928, No. 7; *Epigraphia Carnatica*, Vol. V, Ak. No. 87.

⁴¹ *Epigraphia Carnatica*, Vol. II, No. 520; Vol. VI, Kd. No. 149.

⁴² *Ibid.*, Vol. VII, Hl. No. 1; *S.I.E.A.R.*, 1930, Ap. F., No. 79.

states that "son of Vinayāditya was the world-renowned Ereyanga Poyasāla. At the Emperor's bidding he caused the elder brother to sheathe (his sword)."⁴³ As a result of the active support given to Vikramāditya, Vinayāditya and his son were rewarded by Vikramāditya VI. Formerly, during the reign of Someśvara I, they were governing the Māle country and others forming the Gaṅgamāṇḍala 96000, in 1062 A.D.⁴⁴ Vikramāditya appointed them as governors of the Gaṅgavādi 96000 province.

Vinayāditya curbed the power of other feudatory chieftains also. The Nojambas were the feudatories of the Cālukyas, but their relations with the Hoyasālas do not seem to have been friendly. An inscription dated 1084 A.D. states that a battle was fought between the Nojambas and Neñilige Perggaḍe Alamayya, a subordinate of Vinayāditya, at Nojambanakere, and the Hoyasāla Mahāsāmanta lost his life in the actions.⁴⁵ Once Vinayāditya led an expedition against the Dañḍanāyaka Masañaiya. The battle was fought on the banks of the river Kapeli and Masañaiya was killed in the battle.⁴⁶

Extent of his Dominions.—The Hoyasāla Nṛpakāma had established his control over a small strip of territory south of the river Kṛṣṇā. Vinayāditya conquered the Māle country⁴⁷ and was appointed Governor over the Māle and other districts by the Cālukya Someśvara I. He seems to have captured some neighbouring territory and in his inscriptions claims to have become master of Kongu,⁴⁸ Alavakheda, Bayal-nād, Talekād and Savimāle.⁴⁹

Alavakheda was the territory of the Alavas, comprising the modern south Kanara; Bayal-nād is identified with the modern Wainad in the Malabar country. Talekād is no other than the city which was the capital of the Gaṅgas and which was captured and annexed by the Coṭas. The Hoyasāla territory extended up to Talekād, but the city was not in their hands. Savimāle cannot be precisely identified, and Rice thinks that it may be Savanūr in the Dharwar District of the Bombay Presidency. It is also mentioned as the northern boundary of the Hoyasāla principality.⁵⁰ A Belagāve inscription states that Vinayāditya was ruling Gangavādi 96000 and his subordinate Mahāsāmanta Gaṇḍrāditya was ruling Arakere, Kaligundā, Karivide, Beligere, Kundur, Bālasamudra and Avalu.⁵¹

⁴³ *Epigraphia Carnatica*, Vol. V, Ak. No. 102 a.

⁴⁴ *Ibid.*, Vol. VI, Kd. No. 161.

⁴⁵ *Ibid.*, Vol. V, Ak. No. 6.

⁴⁶ *Ibid.*, Vol. IV, Ng. No. 56.

⁴⁷ *Ibid.*, Vol. VI, Kd. No. 161.

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*, Vol. IV, Ng. No. 32.

⁵⁰ *Ibid.*, Vol. VI, Ng. No. 32 Intro., p. 18.

⁵¹ *Ibid.*, Vol. XII, Tp. No. 105.

From the findspots of the inscriptions also it is known that the Kadur and the Hassan Districts of the Mysore State were directly under his control and slowly the Hoyasalas occupied parts of Mysore, Shimoga and Tumkur Districts. All these Districts then were included in the Gaṅgavāḍī 96000 province.⁵² An inscription vaguely puts that Vinayāditya "ruled from the west as far as Taḷakāḍu".⁵³

Vinayāditya is said to have risen to power by the favour of his Jain Guru Śāntideva.⁵⁴ On Monday, June 24, 1062 A.D. (*Asādha Purnimā*) Śāntideva "performing the rites of *Sanyāsa*, as the reward of his faith, attained the realm of his *Nirvāṇa*" and the townsmen erected a monument at Śośevūr in commemoration of his memory.⁵⁵ After the death of Śāntideva, the Jain teacher Gaṇasena Paṇḍitadeva of Mallūr became the Gurū of Vinayāditya⁵⁶ and a grant was made in his favour. Vinayāditya inscribed six letters Ra-kka-sa Hoysala on his flag.⁵⁷ In 1047 A.D. his capital was at Śośevūr,⁵⁸ it was at Belūr in 1096 A.D.⁵⁹ As already stated Dvārasamudra had also become a seat of the Hoyasalas.

Vinayāditya continued to rule at least up to 1100 A.D.⁶⁰ as inscriptions dated 1098⁶¹ and 1100 A.D. of his reign are found. Throughout his reign he was helped by his son Ereyanga in the administration of his principality.

An inscription dated 1062 A.D. records that Kumāra Ereyanga was protecting the Gaṅgamaṇḍala 96000 along with his father.⁶² Ereyanga remained *Yuvarāja* for nearly forty years as inscriptions dated 1062⁶³ and 1100 A.D.⁶⁴ give him the title of *Yuvarāja*.

⁵² *Epigraphia Carnatica*, Vol. VI, Ak. No. 102 a.

⁵³ *Ibid.*, Vols. IV, V, VI, VII and XII.

⁵⁴ *Ibid.*, Vol. II, No. 67.

⁵⁵ *Ibid.*, Vol. VI, Mg. No. 17.

⁵⁶ *Ibid.*, Mg. No. 13.

⁵⁷ *Ibid.*, Vol. V, Cm. No. 148.

⁵⁸ *Ibid.*, Vol. VI, Cm. No. 160.

⁵⁹ *Ibid.*, Kd. No. 142.

⁶⁰ *Ibid.*, Vol. VI, Kd. No. 164.

⁶¹ *Ibid.*, Vol. V, Cm. No. 207, Ak. No. 179.

⁶² *Ibid.*, Vol. VI, Kd. No. 161.

⁶³ *Ibid.*, Kd. No. 142; *The Mysore Archaeological Survey Reports*, 1926, No. 7.

⁶⁴ *Ibid.*, Vol. V, Ak. No. 102 a.

A CRITICAL EXAMINATION OF ALEXANDER'S THEORY OF KNOWLEDGE

By S. N. L. SHRIVASTAVA, Esq., M.A.

"THEORY OF KNOWLEDGE" says Prof. Alexander "is....with me not, as so often, I think erroneously believed, the foundation of metaphysics, but only a chapter of it, which it takes in its stride".¹ In saying this Alexander is voicing the view-point of the entire class of modern realists who have put 'the emancipation of metaphysics from epistemology' in the very forefront of their neo-realist programme. The neo-realists have a standing consternation for any indulgent and charitable consideration of *knowledge* which, they always suspect, threatens to jeopardise their own metaphysical position. Now, this question, decided anyway, will not really give the vantage ground to the realist; for even conceding that epistemology is only a 'chapter' in metaphysics or that it is a direct, final and independent study in itself, it cannot be denied that the finale of any metaphysics, realist or idealist—and this holds true of Alexander's own metaphysics—would have been different but for its particular theory of knowledge. Be as it may, an attempt will be made in this paper to examine critically some of the leading principles of Alexander's theory of knowledge and to vindicate that his programme of presenting a realist philosophy on the foundation of those principles is a signal failure.

Leaving out specific details, we shall only consider here what Alexander has to say on the most fundamental question of epistemology, *viz.*, the nature of knowledge as such and the relation of knowledge to reality. Now, any close student of Alexander's philosophy will readily discover that he in his zeal to maintain the *democracy* of all finite existences—finite *things* as well finite *minds*—simply preoccupies himself with discussing the status of the finite mind and the relation of objects to the discrete and transient mental acts. Nowhere in his writings do we find any attempt to offer a solution of the wider epistemological problem of the relation of *knowledge as such* to the world of reality. Alexander simply narrows down the problem of epistemological enquiry to the discovery of what is implied in the *relationship of a particular mental act to a particular physical object*. But this narrowing down of the problem can have no justification unless it be shown that knowledge can be construed in no other sense but as a particular mental activity

¹ *Space, Time and Deity*, Vol. I, Preface to the second edition, p. xiii.

of a finite mind in relation to a particular object before it. Alexander clearly holds that knowledge means nothing more than this. "I entertain no doubt," he writes, "that knowing is correctly described in the biological fashion which has been indicated: that the man reacts to the object which excites him, and that in and through this practical response the object is revealed to him as being there."² Knowledge has a practical foundation: "We know because we do; that we become aware of things in our behaviour towards them."

Now, this account of knowledge involves two assumptions which call for criticism :—

- (i) One, that knowledge is a *product or effect* of a physiological process elicited in response to stimuli given by the world of nature; and,
- (ii) Secondly, that knowledge is a particular temporal³ *event* or happening in the individual mind.

(i) The first assumption makes 'object' prior to knowledge in point of chronological sequence and treats nature, the world of objects, as a self-closed and independent system which reacts on the organism and evokes therefrom certain physiological responses which become the generative conditions of knowledge. This is only a recrudescence of the old materialism which sought to *derive* knowledge from physiological and neural processes. But is there any evidence to show that physiological and neural processes are organically connected with psychical processes? No psychology or philosophy ancient or modern, has yet succeeded in bridging the gulf between the last known physiological or neural event and the manifestation of knowledge or awareness. Merely the fact of the concomitance of the two kinds of processes does not warrant the inference that the one is caused or generated by the other. The bodily and neural processes in the brain may be simply, as Śaṅkara pointed out, an auxiliary or *upakarana* of the mental processes and not their cause or generative condition. Every derivative account of knowledge makes the confusion between the auxiliary or the *upakarana* and the cause. In fact, the variety and complexity of the mental processes and the comparative simplicity both in range and in number of the neural processes hardly lends any countenance to the view that the former may be derived from the latter. Nor is it in anywise conceivable that there *must* be a neural correlate of every psychical process. What, for example, as Prof. Stout asks, will be the neural correlate of the meaning of the $\sqrt{-1}$?

² *Space, Time and Deity*, Vol. I, Preface to the second edition, p. xvi.

³ By 'temporal' I mean here something which has a beginning and an end in time.

Then, again, there are proofs positive of there being no organic relation whatsoever between bodily and mental processes. Śāṅkara cites the phenomena of death and sleep as instances in point. Had there really been any organic connection, he argues, between bodily and mental processes and had the mental processes been simply qualities of the body as form and shape and other qualities are, then the mental processes should also have existed at death. But it is not so. Nor can we say that psychical processes cannot go on in the absence of physiological processes. During sleep, physiological processes are held in abeyance, yet the psychical processes (as evidenced in dreams) go on independently of them. So we can say with Bergson that the mind overflows the brain. Knowledge cannot be viewed simply as the terminating link in a chain of physiological and neural processes.

By far the most telling argument, however, against the derivative view of knowledge was given by Śāṅkara and modern idealists like T. H. Green and others when they pointed out that knowledge *qua* knowledge or consciousness of objects, is *ipso facto* different from the objects of which it is conscious and cannot therefore be a quality or product of the objects. Knowledge, as Green said, is the principle of objectivity or that which renders things *objects* to itself; consequently, knowledge itself cannot be caused or conditioned by any object or series of objects. Knowledge which is the inexpugnable *precondition* of the revelation of all the characters of things including even the fact of their existence and of nature as an orderly and interconnected cosmos of experience cannot itself be conditioned by things or any natural process whatsoever. "It seems necessary, then," writes Green, "to admit that experience, in the sense of a consciousness of events as a related series—and in no other sense can it help to account for the knowledge of an order of nature—cannot be explained by any natural history properly so-called. It is not a product of a series of events. It does not arise out of materials other than itself. It is not developed by a natural process out of other forms of natural existence."⁴ Knowledge is underived and foundational; and Alexander's attempt to explain it in the "biological fashion" is nothing short of the darkest travesty of the real nature of knowledge.

(ii) Now we come to the second assumption in Alexander's account of knowledge, *viz.*, that knowledge is a particular temporal event or happening in the individual mind. This second assumption, evidently, is but a necessary corollary or consequence of the first. Once knowledge is denied its foundational character as the medium of all reality and viewed simply as the terminus

⁴ *Prolegomena to Ethics*, p. 22.

event in a chain of physiologico-neural processes, the conclusion that it is a discrete and particular happening in the individual mind is simply inevitable. Knowledge becomes identified with the passing and momentary stream of psychical presentation.

Now, the question : What is knowledge ? admits of two different answers according as we raise it (i) from the standpoint of psychology or (ii) from that of epistemology properly so-called. It is the inability to appreciate the distinction between these two view-points that vitiates the theories of knowledge in contemporary realism. Psychology is concerned with knowledge only in the sense of the transitory course of ideas, images, feelings and volitions, etc., which are events in the life-history of the individual mind. Psychology is concerned with these phenomena as psychical or *subjective* phenomena only and not as in any way intrinsic to the world of permanent or *objective* reality. Epistemology, on the other hand, is not concerned with knowledge as a subjective process in *this* mind or *that* ; it is concerned with *knowledge as such* in so far as it is intrinsic or organic to the permanent structure of reality. It is the psychological bias of Alexander that prevents him from making the proper approach to epistemological study.

For a proper appraisal of the nature of knowledge and its place in the scheme of reality, we must scrutinize experience itself—I do not mean experience in the Bradleyan sense of a supra-logical and supra-relational state of feeling, but our familiar experience. Now, the world of our experience, Green has pointed out, has two prominent but obvious characteristics which we can hardly deny. One, that it is a process of change and of succession of phenomena, and secondly, that it is a network or cosmos of relations. These are truths which anyone, whatever the school of philosophical thought he may profess to belong to, will readily admit. But if these be conceded, Green tellingly argued, we have inevitably to concede further that there is an eternal and unchanging principle of knowledge or consciousness which is the inexpugnable precondition of experiencing nature as a process of change and as a cosmos of interrelated phenomena. Experience of change presupposes a consciousness which itself is not subject to change. This is how Green summarises his argument on the point : "Nature, with all that belongs to it, is a process of change : change on a uniform method, no doubt, but change still. All the relations under which we know it are relations in the way of change or by which change is determined. But neither can any process of change yield a consciousness of itself, which, in order to be a consciousness of the change, must equally be present to all stages of the change ; nor can any consciousness of change, since the whole of it must be

present at once, be itself a process of change. There may be a change into a state of consciousness of change, and a change out of it, on the part of this man or that ; but within the consciousness itself there can be no change.⁶

Then, again, there is the other characteristic of nature or the world of our experience, *viz.*, its being a cosmos of relations which requires as the very condition of our experiencing it as such the relating or unifying principle of knowledge or Consciousness which cannot be identified with the course of particular ideas and presentations in the individual mind. Particular ideas, thoughts, feelings, images, etc., which can be designated as 'states of consciousness' are, as T. H. Green has tellingly pointed out, *events or phenomena* and *as such* are different from knowledge itself which is a consciousness of events or phenomena. A psychical event such as an idea or an image in an individual mind is *qua* an event as much different from *knowledge* as any other physical or natural event is from it. The knowledge or consciousness of events cannot itself be an event or a part of the order of events. If knowledge itself were an event in the world of events, there would be nothing left to impart unity to human experience which would reduce itself to a chaotic throng of merely particular and unrelated events. In other words, there would not be for us a "world" or a "cosmos" such as we have, a single connected and inclusive order of events within the context of which particular events themselves are rendered *intelligible*.

Knowledge properly so called is distinguishable from what are known as 'states of consciousness' or 'phenomena of consciousness'. The realist attempts to simplify matters by overlooking the distinction between these two and by equating the former with the latter. The distinction becomes at once clear when we try to understand the nature of knowledge itself apart from the process whereby knowledge is arrived at. The latter involves successive and discrete 'states of consciousness'; but the former is always a many in one, a connected grasp of elements which are not given discretely in a successive order of 'before' and "after" but all at once in a 'togetherness'. I shall quote here an illustration taken by Green to explain the distinction in point : "As an instance," he says, "let us take a man's knowledge of a proposition in Euclid. This means a relation in his consciousness between certain parts of a figure, determined by the relation of these parts to other parts. The knowledge is made up of those relations as in consciousness. Now it is obvious that *there is no lapse of time, however minute, no antecedence or consequence, between the complex formed by them and anything else*. To call such knowing consciousness a phenomenon, in the

⁶ *Prolegomena to Ethics*, p. 23.

ordinary meaning of a sensible event, is a confusion between it and the process of arriving at and losing it. That in the learning or forgetting a proposition of Euclid, as in the acquisition or loss of any other piece of knowledge, a series of events takes place, is plain enough; and such events may legitimately be called 'phenomena of consciousness'. But it must be noticed that when these events of the mental history come to be reviewed in intelligent memory or experience when we know them as the connected facts of a history—*their existence as in consciousness is no longer that of events*. They do not succeed each other in time, but are present in the unity of relation, as much as are the parts of a geometrical figure which has been apprehended by, or taken into, an intelligent consciousness.⁶ Knowledge, therefore, in the proper sense of the term, is a very different thing from the particular psychical presentations that are involved in the process contributory to it.

Alexander's attempt, therefore, to equate knowledge with the psychical processes in the mind and to explain it as the resultant or effect of a set of physico-physiological events is a grave error. In his anxiety to fly the banner of realism by dwarfing the importance of knowledge, Alexander has drifted towards a most pitifully naive view of knowledge. In fact, in point of crudity, Alexander's view of knowledge differs neither from behaviourism of the extremest type, nor from 'neutral monism' from both of which Alexander tries (vainly) to differentiate his own position. Alexander writes in one place that his own doctrine of enjoyment differs from the 'behaviourism' of J. B. Watson in this that it does not like the latter regard consciousness as "a bare addendum which may be neglected, but as part of the real fact, as sound is of a certain kind of vibration".⁷ So also he says his doctrine differs from Holt's 'neutral monism' in this that it does not like it regard the mind as a set of *objects*, but as "a set of events located in the body, and more particularly in the head, and referring to objects".⁸

Now, this claim of Alexander that his doctrine is neither behaviourism nor neutral monism can, we are afraid, hardly stand. In the first place, Alexander has made no secret of the fact that he regards 'awareness' or 'knowledge' as simply being identical with 'a certain neural condition';⁹ and it is obvious that a doctrine which thus construes knowledge is hardly distinguishable from behaviourism.

⁶ *Prolegomena to Ethics*, p. 66.

⁷ *Space, Time and Deity*, Preface to Vol. I, p. xx.

⁸ *Ibid.*, p. xx.

⁹ Alexander has clearly written: "In being aware of a certain object the man is in a certain neural condition which enters into his experience as consciousness,"—*Ibid.*, p. xviii.

Secondly, what does location of mental events in the body and *in the head* mean? If acts of knowledge or awareness be viewed as events located in the body or in the head, then it follows that they are also physical events, for only physical events can take place within physical things such as the body and the brain are. Further, *location* is intelligible only as a *spatial relation between physical or material objects*. When Alexander speaks of mental events as occurrences *in the head* or as certain neural processes, his position, in spite of his denial, becomes substantially that of a neutral monism, or to put it more plainly, that of a *materialistic* monism. Simply saying that acts of awareness are 'events' rather than 'objects' adds nothing to their status nor puts them on a level different from that of objects.

Thus, by misconstruing the nature of knowledge and by identifying it with the passing course of psychical occurrences in the individual mind that are physico-physiologically generated, Alexander has failed to solve the central epistemological problem of explaining the relation of knowledge as such to the world of reality. Alexander's view of knowledge does not enable us to answer the question thus put by Dr. Bosanquet : " How does the course of my private ideas and feelings contain in it, for me, a world of things and persons which are not merely in my mind ? "¹⁰

The idealistic view of the nature of knowledge and of the relation of knowledge to reality will, we believe, be found to be a sound and satisfactory solution of the problem, if only it is understood without any bias or misgivings. Alexander, we are afraid, has not been without serious misgivings, regarding the idealistic position. He has been labouring under the delusion that the central thesis of all idealism is " no mind, no object : in the absence of mind there would be not only no experience in the sense that there would be no experiencer, but nothing to be experienced ". And a few lines further adds a warning that " *prima facie* there is no warrant for the assumption, still less for the dogma that, because all experience implies a mind, that which is experienced owes its being and its qualities to mind ".¹¹

But it is a question whether any idealist worth the name has held the view that the mind *creates* the world of reality.¹² " The fact that there is a real external world," says Green, " of which through feeling we have a determinate experience and that in this experience all our knowledge of nature is implicit is one which no philosophy disputes."¹³ " Certainly for myself,"

¹⁰ *Essentials of Logic*, p. 4.

¹¹ *Space, Time and Deity*, Vol. I, p. 6.

¹² For a detailed discussion of this point vide the writer's article on ' Idealism and the materialistic predicament ' in the *Philosophical Quarterly* for July 1937.

¹³ *Works*, I, p. 376.

writes Bosanquet, "if an idealist were to tell me that a chair is really not what we commonly take it to be, but something altogether different (unless he meant 'a dance of electrons' or the like), I should be tempted to reply in language below the dignity of controversy."¹⁴ In a similar strain Bradley writes : " If the reader believes that a steam-engine after it is made, is nothing but a state of the mind of the person or persons who made it, or who are looking at it, we do not hold what we are tempted to call such a silly doctrine, and would point out to those who do hold it that, at all events, the engine is a very different state of mind, after it is made to what it is before. "¹⁵

If the prejudice, therefore, against idealism that it volatilises or spirits away the world of external reality by viewing it as a mental creation be put aside and the idealistic account of knowledge and its relation to reality be correctly understood, it will be found to be the only real and satisfactory solution of the problem of knowledge and the only true alternative to the misleading empirico-realistic doctrine such as that advanced by Alexander. An exposition of idealism in its varied aspects is not germane to the main purpose of this essay ; yet, it would be conducive to a greater clarity of thought and to a more effectual vindication of the inadequacy of the empirico-realistic solution of the problem of knowledge, if the idealistic account of knowledge and its relation to reality be expressed here in a few words. Idealism does not equate knowledge with the fragments of psychical presentations that make up the life-histroy of the individual mind but construes it as something which " constructs and sustains the fabric of experience ". And it is this important role of knowledge as a " world-builder " that in the main I wish to emphasise here and set in contrast to Alexander's empirico-realistic treatment of it. Now the very first principle of idealistic epistemology is that knowledge is the medium of reality's revelation to us. It is in and through knowledge alone that anything—be it a single object or the entire world of objects that we are aware of—can communicate its reality to us. Even the predication of the bare existence of anything would not be possible for us if the thing were not conditioned by being an object of knowledge. So knowledge is the *prius* and precondition of there being for us a world of objects. The former is therefore logically prior to the latter and can in no way be derived therefrom. Further, the world of our objective experience as it is for us is built up by the constructive interpretation of knowledge according to its own necessary laws. Apart from or shorn of the interpretative activity of knowledge, the world of our experience will be reduced, in

¹⁴ *Meeting of Extremes in Contemporary Philosophy*, p. 5.

¹⁵ *Ethical Studies*, p. 61.

the words of Dr. E. Caird, to "a world of pure mechanical attractions and repulsions, of motions that never reveal themselves as colours or sounds, as pressure or heat, as taste or smell."¹⁶ The empirico-realistic account of knowledge puts the cart before the horse when it gives the priority to nature and explains knowledge as something *derived* and resulting from the stimuli given by nature to the sentient organism. Then again, as has already been pointed out, knowledge cannot be equated with psychical occurrences in the mind which are caused or occasioned by such stimuli.

The central contention between idealism and realism is that while for the former knowledge has a unique and foundational status in so far as it constructs for us the objective world of our experience and is a free principle in the sense that it cannot be *derived* from physical and physiological conditions, "for realism," as Prof. Alexander says, "mind has no privileged place except in its perfection."¹⁷ But, we are tempted to ask whether in the simplest act of knowledge, say, a most trivial perceptual judgment, the thing perceived can ever be an intelligible content of our experience apart from the constructions or interpretations of the mind? Can you anywhere get within intelligible experience what you could point to as the *pure* datum of perception which is unqualified by constructive or interpretative judgment? Alexander chooses a very simple example, *viz.*, the perception of a tree or a table to illustrate the knowledge situation. "This situation," he tells us, "consists of the act of mind which is the perceiving, the object which is so much of the thing called tree as is perceived, the aspect of it which is peculiar to that perception, let us say the appearance of the tree under these circumstances of the perception; and the togetherness or compresence which connects these two distinct existences (the act of mind and the object) into the total situation called the experience."¹⁸ Now the very fact of calling the object of perception a "tree" is clothing the bare datum of perception with a *meaning* which can in no way be regarded as part or component of the datum itself nor as a *particular* mental correlate of *that particular* datum only, for the meaning in its universality is not confined to that datum alone. The realistic account of the knowledge situation may appear attractive for its simplicity but it overlooks the fact that any piece of knowledge in any judgment that we make, far from being a particular mental correlate of a particular and isolated object, really forms one tissue with the entire system of ideas affirmed by us of the whole world of our knowledge. The affirmation of any one thing in the world implies at the same time the affirmation of the

¹⁶ *The Critical Philosophy of Kant*, Vol. I, p. 30.

¹⁷ *Space, Time and Deity*, Vol. I, p. 8.

¹⁸ *Ibid.*, p. 11.

entire world known to me ; so that, as Bosanquet says, in affirming the reality of the room I am sitting in, I am also affirming the reality of the Antipodes, for " they are an element, necessary to educated thought, in the same system with which I am in contact at this moment by sight, touch and hearing, the system or reality. And though I may not have explicitly thought of them since entering the room till now, yet, if they were no part of my affirmed system of ideas, my perception of anything in space would be quite different from what it is.¹⁹ Every judgment of ours is characterised by self-transcendence and integration into that whole of knowledge which constructs for us the world of our experience. To flout this constructive role of knowledge, as realism does, is to render experience itself inexplicable.

A word about compresence. Alexander speaks about the compresence of the object and the act of knowledge as if the two were *separate* entities along side of each other. The idea is essentially one of spatial juxtaposition which is quite unsuited to express the relation of object to knowledge. An object considered as separated from its relation to knowledge can be anything but an *intelligible* object of our concrete experience.

Thus we find that Alexander's analysis of the knowledge situation is hopelessly inadequate and does not assign to knowledge its fundamental place in the scheme of reality which is legitimately due to it.

¹⁹ *Essentials of Logic*, p. 35.

ONE ASPECT OF JAYA SHANKAR PRASAD

BY HARI DATTA DUBE, Esq., M.A.

EVERY renascent literature must have its Romantic Movement and a Romantic Movement must have something wild in it. The reason is clear. A movement of this nature is a process of resuscitation which necessarily presupposes life in a decadent literature choked by the callous incrustation of dead form, and as such it involves violence and energizing; violence to remove the crust of superannuated form, and energizing to restore a literature to its natural stature; but naturally it begins with the former. A renascent literature thus is more concerned with scorn of the old than with the building up of new institutions, and must appear destructive in its tendencies. But human nature cannot subsist on scorn which soon becomes loathsome, and leads it to the field of creation. This process involves confusion, sometimes apparently inextricable. But this confusion is the ebullience of the rebirth of a literary force which finally resolves into clearly marked tendencies endowed with the vigour of youth. The last fifty years of Hindi literature have seen this process of revival. So far as poetry is concerned this process is almost complete, and the chaotic confusion has been followed by the emergence of various tendencies that have crystallized, or are crystallizing, in the various schools of Hindi poetry.

We are here concerned with the tendency which found its fulfilment in Prasad. As mentioned above a revival in literature aims at vitalizing its eternal spirit by freeing it from the cold grip of dead form. Obviously, then, the old tendencies of Hindi literature must be traceable in its modern development. Prasad's poetry is mainly subjective and it should not be difficult to trace its course back to its original source in the pre-revival period. One thing should be noted in this connection, and it is that most of the subjective poetry in Hindi has taken a mystical form; perhaps it need not be mentioned that mysticism in literature means spiritual symbolism. It will be out of place here to investigate the causes of this peculiarity. Kabira and Dādū, along with many others, were the representatives of this School in the past, and curiously enough we find their spirit coming down to and pervading the modern subjective poetry.

A clear comprehension of the subject demands an explicit knowledge of the real import of mysticism in literature. Unfortunately mysticism is

a very much misused word these days, all kinds of vague versification being classed under it. This has done much harm, specially to the young aspirant to literary fame. It is not commonly recognized that mysticism is the result of a soul-stirring search for the central reality of the Universe, and not a mode of literary expression. It is not a thing to be learnt. If it comes at all, it comes unconsciously. Then again there are formal differences in the various kinds of mystic poetry. To understand the real nature of this apparent difference we shall have to go deeper into the matter.

One factor is common to all mystics ; they feel the inanity of the objective world around them and as a result their soul goes out, or dives deep into their own being, in search of the permanent central reality which sustains all this phenomenal existence. This is the same spiritual attitude which has been regarded as the starting point of philosophy on the intellectual plane. Naturally this realization of the insufficiency of the phenomenal existence gives rise to a kind of restlessness :

विरह जगावै दरद को दरद जगावै जीव ।

जीव जगावै सुरति को पंच पुकारै पांच ॥

—दादू

This विरह, this separation, is the realization of this inanity, and this दरद, this pain, the restlessness resulting from it. An attempt to satisfy this restlessness on the intellectual plane results in philosophy, but when emotion becomes the guide, the result is mystic poetry and we hear पांच की पुकार, the calling of the Lord. But this is only the starting point of a long and tedious process, and in this process lies the divergence of the various mystic schools of poetry.

Human nature being a complex entity, interaction between the various parts of it is inevitable. Psychologically speaking, the mind stands midway between the mystic world of spirit and the objective world of phenomena. So situated the mind plays a really very important part in the spiritual unfoldment. It acts as the medium through which spiritual realities and experiences are projected outside in the world of senses, and for this very reason it lends its colour to anything passing through it. This colour is the standard of its culture, its polish. A crude uncultured mind at once jumps from the spiritual world beyond it to the world of senses on this side ; but a cultured and sensitive mind cannot, and does not, jump in this way. According to the standard of its refinement it has a more or less clear conception of the distinctness of the two worlds and the process of passing from one to the other, and consequently it travels gradually from the vague beyond to the palpable concrete. Metaphorical language is the

only means to be employed in both the cases ; only in the former the imagery is crude and often degenerates into boring platitudes, and in the latter it is a highly elaborate portraiture giving rise to beautiful allegories. Evidently the difference lies apparently in the less important part, but from a poetical point of view even this difference sometimes becomes of vital importance. The substratum in both the cases is the same solid rock of spiritual experience. Kabira and Prasad are the representatives of these two schools of mystic poetry respectively. We shall now endeavour to see how Prasad is in the same line as Kabira.

Āmsū and *Kāmāyanī* are the two monumental works of Prasad representing the beginning and the consummation of his explicit spiritual experience respectively. Through these works we can trace the unfoldment of Prasad's genius. The first is naturally lyrical in its nature, because even a spiritual experience when reflected on a poetical temperament must be dominated by the sweetness of music ; and every spiritual experience first begins on the sentimental plane only gradually boiling down to the plane of intellect, when it becomes a beautiful blend of emotion and idea which combination represents life in its entirety. *Āmsū* is the first part of the journey and is throughout instinct with the restlessness of the poet's heart which is smarting under the shock of a new realization which has taken away the *terra firma* of this world from under his feet, but has not yet provided him with a permanent solid footing. There are, no doubt, signs that he has been able to acquire glimpses of the central reality, but he is more a prey to his besetting realization of a vague vacuum around him than anything else.

But the poet of *Āmsū* emerges in *Kāmāyanī* in quite a different form. His yearnings have been satisfied and he has been blessed with the vision he sought ; he is living in the blissful calm of confidence. Now we shall hurriedly trace this career of the poet's genius. I am conscious of the limits of my theme which does not warrant a detailed examination of the two works. Our aim here is only to trace the mystical thread winding its way through them. I shall refrain from making very lengthy quotations :

जो धनीभूत पीड़ा थी, मस्तक में स्मृतिसी छाई ।

दुर्दिन में आँसू बनकर, वह आज बरसने आई ॥

—आँसू

The condensed anguish of the poet pervaded his mind for some time and then sought an outlet in the form of a downpour of tears. This पीड़ा is the same as Dādū's दरद. The poet himself gives us the genesis of this anguish :

मानस सागर के तट पर
 क्यों लोल लहर की धारें
 कलकल ध्वनि से हैं कहती
 कुछ विस्मृत बीती बातें ?
 आती है शून्य क्षितिजसे
 क्यों लौट प्रतिध्वनि मेरी ?
 टकराती, चिलखाती सी
 पगली-सी देती केरी ?
 क्यों व्यथित व्योम-गंगा-सी
 छिटकाकर दोनों ओरें
 चतना-तरंगिनि मेरी
 लेती है मृदुल हिलोरें ?

—अँसू

This is a piece of solid philosophy, only it has been pleasingly coloured with sentiment and has been clothed in charming imagery. And for this reason it is poetry. The fringe of the poet's consciousness is assailed by vague influences that appear to him to be recollections of some dim past fitting across his inner being. Under the shock of these influences his mind travels outside, perhaps in search of a consoling prop but comes back unreacted. The poet then visualizes his consciousness as a river, the two banks of which are the spiritual world within and the material world without; the one sending out staggering impacts and the other failing to react to them actively. This is the most picturesque description of what one feels like when under the influence of that spiritual thirst which has been mentioned above, and this is the genesis of that anguish, that दरद. This anguish persists and constantly preys upon the poet :

वेदना विकल फिर आई
 मेरी चौदहों भुवनमें
 सुख कहां न दिया दिखाई
 विश्राम कहां जीवन में ?

—अँसू

A full-fledged mystic poet is he who has been able to meet his Lord face to face. It is only then that he sheds light and bliss around him and is an incurable optimist. But a mystic poet cannot be so fortunate from the beginning. In the beginning he must be subject to repeated onslaughts of despair and dejection and this experience must dominate in his poetry. This is the reason why वेदना predominates in *Āmsū*. This is common to all poets of this school :

हँस हँस केतन पाहया जिन पाया तिन रोय ।
 हँसी खेले पिल मिलै तो कौन दुहरिगिन होय ॥
 सुखिया सब संसार है खावै औ सेवै ।
 दुरिवया दास कबीर है जागै औ रोवै ॥

—कबीर

जागना and रोना, to be awake and to weep, are very expressive. The poet is living in the dire realization of separation from his Lord, and this separation is eating into his vitals and urging him on to find Him out :

इतना सुख ले पल भर में
 जीवन के अंतस्तल से
 तुम खिसक गये धीरे से
 रोते अब प्राण बिकल से ।

—आँसू

Here is the same sense of separation and the same yearnings to meet the Lord who has gone away leaving a wretched vacuum behind Him. There is another suggestion in this stanza. The poet has been able to meet the Lord for a moment and therefore to taste the bliss of His meeting. This momentary bliss has not only given him satisfaction but has also made everything else stale and wretched.

The restlessness increases and becomes ubiquitous :

जब नील निशा-अर्चल में
 हिमकर थक सो जाते हैं ।
 अस्ताचल की धाटी में
 दिनकर भी खो जाते हैं ।
 नश्त्र छब जाते हैं
 स्वर्गगा की धारा में,
 बिजली बनदी होती जब
 कादम्बनि की कारा में
 मणि-दीप विश्व-मंदिर की
 पहिने किरणों की माला
 तुम एक अकेली तब भी
 जलती हो मेरी ज्वाला ।

—आँसू

चातक की चकित पुकारें,
 इयामाध्वनि तरल रसीली,
 मेरी कहणार्दि कथा की
 ढुकड़ी आँसू से गीली ।

—आँसू

It is necessary for us to guard against a misunderstanding ; this painful experience should not be confused with pessimism. The restlessness and pain of a mystic are the result of his failure to see the light, of whose existence he is quite sure ; while pessimism is that attitude of the mind which despairs of light, because it has lost all faith in its existence. The darkness in the former case is temporary and is comparable to the morning twilight which precedes the bliss of sunlight ; but the darkness in the latter case is permanent and presages the chill night of spiritual death. The poet of *Āṁsū* is conscious of the thinness of the film which separates him from his light :

निर्मम जगती को तेरा
मंगलमय चिले उचाला।
इस जलते हुए हृदय की
कन्याणी शीतल उचाला ।

—आँसू

These lines clearly indicate that the poet's heart is in travail and the birth of a new life is quite at hand. As mentioned above, the poet of *Āṁsū* has not been able to see the light of his Lord from close quarters, and has not been able to secure that vantage ground which ensures a permanent view of that Source of all light. These glimpses of Him sustain him in his darkness and enable him to cherish the hopes of a bright future for mankind :

सब का निचोड़ लेकर तुम
सुखसे सूने जीवन में
बरसो प्रभात-हिमकन-सा
आँसू इस विश्व-सदन में ।

—आँसू

His confidence in the coming light is clearly evidenced by such lines as these :

जिसके आगे पुलकित हो
जीवन है सिसकी भरता।
हाँ, मूर्ख दृश्य करती है
मुसङ्गयाती खड़ी अमरता ।
वह मेरे प्रेम बिहँसते
जागो मेरे मधुषन में
फिर मधुर भावनाओं का
कलरव हो इस जीवन में ।

—आँसू

How august is the presence of the Lord. One is forcibly reminded of the eleventh chapter of the *Bhagavadgītā*. By the way, there is no occasion

here to dwell upon the poetical beauties and the literary excellences of Prasad. However, it will not be out of place to point out here the beautiful symbolism which is Prasad's peculiarity. प्रभात हिमकन is very significant and its suggestion is far-reaching. The following lines are a very good example of symbolic expression :

छायानट छवि-परदे में
सम्मोहन-बेणु बजाता।
संध्या-कुहुकिनि-अंचल में
कौतुक अपना करजाता।

—आँसू

These lines not only convince us of the mystical nature of *Amsū* but also present the best example of symbolic poetry, almost every word being instinct with suggestive meanings ; छायानट, छवि-परदा, सम्मोहन-बेणु, संध्या-कुहुकिनि and कौतुक are all very aptly symbolic.

There is one thing we should not lose sight of. It has been already mentioned that mysticism is always unconscious. Students of Prasad have tried to prove that *Amsū* is full of pathos and it depicts the wounded tenderness of his aspirations. Without trying to investigate the physical facts of his life, I am prepared to accept that there might have been separation, bereavement, pain and such other things that might have stirred the poet's mind. As a human being Prasad had his share of misery and pain ; his life was quite chequered. But it cannot be doubted that the stir which had its origin in his worldly life was finally transferred to the spiritual plane. I am prepared even to go so far as to say that he was translating his spiritual experiences, even though he was not himself conscious of the fact. The interaction of the various parts of human nature is true also in this connection.

दीरे-सा हृदय हमारा।
कुचला शिरीष को मलने ;
हिम-शीतल प्रणय अनल बन
अब लगा विरह से जलने।

—आँसू

Such lines can be quoted from *Amsū* to prove the mundane nature of the book, but in this connection I only want to say that sometimes the imagination of the poet has been playing on the surface longer than ordinarily it does or it should. This over-colouring does not alter the substance of the picture.

Now a word about the pathos of Prasad. It has now been repeated almost *ad nauseam* that *Amsū* has a pathetic appeal in so far as it embodies

the sorrow of the poet. Perhaps after proving that Prasad's emotion has nothing to do with pessimism, it is not necessary to prove that this is a mistake. The thing is that in all symbolic poetry there is always the fear of confusing the substance with the colour, the foundation with the superstructure, the subtle with the gross. The higher the degree of symbolization, the greater are the chances of this confusion. A mystic in the beginning experiences a kind of softening of his inner nature which is a healthy and vigorous feeling and has nothing to do with the depressing physical sorrow.

The misunderstanding which is engendered by the physical translation of a spiritual experience is aggravated by the fact that mental attitudes are reflected in the outside world :

लाली मेरे लाल की जित देखों तित लाल ।
लाली देखन मैं गई मैं भी होगई लाल ॥

—कवीर

This is the ecstatic outburst of a perfect mystic who has been blessed with a close vision of his Lord. His bliss cannot be contained within the limits of his own being. It overflows his being and inundates the world around him ; he sees everything red with the ruddiness of his beloved. Not only this much. His experience comes back to him enhanced in its grandeur and he feels its glory afresh ; he himself becomes red visibly.

Just as a perfect mystic would find his bliss reflected in the world around him, so a nascent mystic would find his restlessness reflected in his surroundings :

चातक की चकित पुकारें,
इयामा-व्वनि तरल, रसीली,
मेरी करुणांश कथाकी
दुकड़ी आँसू से गीली ।

—आँसू

To Prasad the world around him appears to be wet with his own tears. And no wonder ! But this is no pathos, because :

सुख क्या था उनको मेरा
जो सुख लेकर यो भागे
साते में चुम्बन लेकर
जब रोम तनिकसा जागे ।

—आँसू

The partial or nascent and therefore momentary realization of the oneness of the individual soul with the Universal soul depicted here in the best

possible way has not its origin in temporal sorrow. By the way, how symbolic is the expression and yet how vivid !

The difference between the nascent and the perfect mystic is clear in many other places in *Āmsū*. The new spiritual experience does not become a solid reality from the beginning. It is so widely different from anything in ordinary human life that its first appearance shakes the inner being of the seeker to its foundations :

नाविक इस स्नेत टप पर
किन लहरों में खेलाया !
इस बीहड़ बेला में क्या
अबतक था कोई आया ?

—Āṁsū

But this perplexity gradually goes on yielding place to certainty which gives the seeker the firmness of truth and instead of considering himself mistaken or bewildered he begins believing that his fellowmen around him, and not he, are mistaken :

या जग अंधा, मैं कोहे समझावौं !

—कबीर

Prasad reaches this goal but in a different way. So far we have been confining ourselves only to *Āmsū* because this book marks the most outstanding landmark in the spiritual voyage of Prasad. Now we have to see what follows this feeling of restlessness which in itself could not be a thing of much value. Its value lies in the direction which it gives to the ambition of a seeker. At this stage various philosophical subtleties enter the subject and make it more abstruse. We shall try to consider only that point which is vitally connected with our theme.

A spiritual experience has various reactions in our life. In many cases it is viewed as a detached reality in which case it loses much of its force and usefulness. Much of the religious confusion prevailing in India is due to this detachment. In fact, it should be regarded as a continuation of our temporal doings, a natural development of temporal life, if not its culmination. Negligence in this matter has been the hot bed of philosophical controversies for which our country is so well known. In the field of poetry Kabira has been the most conspicuous exponent of the latter view though his utterances have throughout been marked by his characteristic crudeness. In modern times Prasad has been a prominent supporter of this synthetic view. But a poet endowed with a highly cultured mind resorts

to an allegorical treatment of his subject. The vague yearnings of Prasad manifested in *Āmsū* would not allow him any peace until he obtained a close and intimate view of the central reality and expressed the resultant thrill in a poetical composition. His soul went on seething and surging till he conceived a perfect synthesis of temporal life and his spiritual experience, and expressed it in *Kāmāyanī*, the culmination of his literary career.

Kāmāyanī is at once a poem of this world and of the other. Manu starts his career on this earth of ours and goes on in his upward march. One thing requires being carefully noted in this connection and it is the distinction between lyrical poetry and an allegory. The author of a poetic allegory must begin his poetic career with lyrical effusions which are the sincere outpourings of his agitated inner life. It is for this reason that all lyrical poetry is very highly emotional; it has very little to do with the intellect. The predominance of emotion continues only so long as the poet has not been able to find out an abiding solution of his puzzles, an abiding peace within himself leading to spiritual bliss. But as soon as he reaches this point of eternal satisfaction, emotion boils down to theories coolly conceived and piously held. Evidently, then this phase of the poet's life should be dominated not by emotion, but by intellect. He recapitulates his own life, his own journey and expresses it allegorically. The first part of the allegory is naturally a description of his own early travails looked at from a distance :

ओ चिता की पहिला रेखा,
अरा विश्व-वन की ब्याली ;
उवालामुखी-स्फोट के भीषण
प्रथम कंप सी मतवाली ।
ओ अभाव की चपल बालिके,
री ललाट की खल लेखा !
हरी-भरी सी दोढ़-धूप, ओ
जल-माया की चल रेखा ।
इस प्रह कक्षा की हलचल ! री
तरल गरल की लघु लहरी !
जरा अमर जीवन की, और न
कुछ सुनने वाली बहरी !

* * *

—कामायनी

जीवन निशीथ के अंधकार !

तू नील तुहिन जल-निधि बनकर फैला है कितना वार पार
 कितना चेतनता की किरणें हैं डूब रहीं ये निर्विकार
 कितना मादक तम, निखिल भुवन भर रहा भूमिका में अभंग
 तू मूर्तिमान हो छिप जाता प्रतिपल के परिवर्तन अनंग
 ममता की क्षीण अरुण रेखा खिलती है तुझमें ज्योतिकला
 जैसे सुहागनी की उर्मिल अलकों में कुंकुम चूर्ण भला
 रे चिर-निवास विश्राम प्राण के मोह जलद छाया उदाहर

माया रानी के केश-भार !

—कामायनी

These lines have the suggestion of the same restlessness which was the most dominant note in *Āmsū*. But there is a difference. *Āmsū* is everywhere full of the fire of emotion, while these lines are a rather cold description. The first is a feeling of effusion, and the second a delineation of things seen from a distance. There is one more difference. If the first excels in fire, the second excels in art; if the first overpowers us by a direct appeal to our innermost being, the second appeals to our entire being, emotion, intellect and all. Now, I think, *Kāmāyani* will not appear to be repeating *Āmsū*.

Let us try to see wherein *Kāmāyani* is an improvement upon *Āmsū*:

नाविक ! इस सूने तट पर

किन लहरों में खेलाया !

इस बीहड़ बेला में क्या

अब तक था कोई आया ?

—आँस

कहां लेचली हो सुभको

श्रेष्ठ ! मैं थक गया अर्धिक हूँ;

साहस छूट गया है मेरा

निःसंबल भग्नाश पर्थिक हूँ।

लौट चलो इस बात-चक्करे

मैं दुर्बल अब लड़ न सकूँगा।

श्वासरुद करनेवाले इस

शीत पवन से लड़ न सकूँगा।

मेरे, हां वे सब मेरे थे

जिनसे रुठ चला आया हूँ;

वे नीचे छूट सुदूर, पर

भूल नहीं उनको पाया हूँ।

—कामायनी

But in *Kāmāyanī* Manu gets an answer :

* * *

हम बड़े दूर निकल आये अब
करने का अवसर न ठिठाली ।
दिशा विकल्पित, पल असीम है
यह अनंत सा कुछ ऊपर है;
अनुभव करते हो बोलो क्या।
पदतल में सचमुच भूधर है ?
* * *

घबराओ मत ! यह समतल है
देखो तो, हम कहाँ आगये !’
मनुने देखा और खोलकर
जैसे कुछ कुछ त्राण पागये ।

—कामायनी

In the new world Manu is puzzled and asks Shraddhā as follows :

मनु ने पूछा “कौन नये ग्रह
ये हैं, श्रद्धे ! मुझे बताओ ।
मैं किस लोक बीच पहुँचा, इस
इंद्रजाल से मुझे बचाओ ।”

—कामायनी

The answer to this question is very highly symbolic and represents very intricate philosophy. The triangle of इच्छा, ज्ञान and किंश, with Manu himself as its centre, is a very significant explanation of human life in its entirety. But this is a separate story and we cannot afford to expatiate upon it here.

Manu in this way trudges on with fresh experiences and corresponding changes in his inner nature. The allegory has become so intricate that it requires an independent treatment, which is not necessary for our present theme. Now I only want to jump to the final stage of this long journey :

मनुने कुछ कुछ मुसङ्ग्याकर
कैलास और दिखलाया ;
बोले, “देखो कि यहाँ पर
कोई भी नहीं पराया ।
हम अन्य न और कुटुम्बी
हम केवल एक हमी हैं ;
तुम सब मेरे अवयव हो
जिसमें कुछ नहीं कमी है ।

शापित न यहां है कोई
 तापित पापी न यहां है ;
 जीवन-बसुधा समतल है
 समरस है जो कि जहां है ।
 चेतन समुद्रमें जीवन
 लहरों सा बिस्तर पड़ा है ;
 कुछ छाप व्यक्तिगत, अपना
 निमित्त आकार खड़ा है ।
 * * *
 समरस थे जड़ या चेतन
 सुंदर साकार बना था ;
 चेतनता एक विलसती
 आनंद अखंड बना था ।

—कामायरी

Here is Prasad a mystic *par excellence*.

HAZRAT¹ SHARFU'D-DIN YAHYĀ MANĪRĪ'S CONTRIBUTION TO THE EARLIEST URDU LANGUAGE

BY GHULAM MUSTAFA KHAN, Esq., M.A., LL.B.

IN my essay "The early development of the Urdu language,"² I have also dealt, to a certain extent, with the part played by the early Muslim saints and mystics in the formation of the Urdu language. Amongst them one is Hazrat Sharfu'd-Din Ahmad Yahyā Manīrī also (of the thirteenth century A.D.), whom I had omitted to mention. Maulānā Sulaimān Nadvī has mentioned in his essay, "Hindu'sṭān mē Hindu'sṭānī," eight sentences of an Urdu "Fālnāma" (table of auguries) of this saint.³ Fortunately, I have got a manuscript, in Persian, which twice contains the same but complete "Fālnāma", comprising all its sentences in Urdu (counting twenty-eight) which are not yet known to the Urdu world. A scholar of Oriental studies only can understand the value and importance of even a single unexplored sentence, which may be as old as about seven hundred years. So, in the interest of the classical literature I will, in the next pages, copy out those twice-written twenty-eight sentences which form in full the complete table of the once famous auguries of Hazrat Sharfu'd-Din Ahmad Yahyā Manīrī. But first I should say something about the manuscript itself, its contents, ownership, etc. ; and also about the life of the saint.

The Manuscript and its Importance

The manuscript, under consideration, was in the library of my late maternal grandfather Maulānā 'Abdu'l Qādir Khān of Tonk who, in his

¹ I differ from the system of transliteration adopted by the Royal Asiatic Society of England, in two points only, and I have got reasons therefor. They use "t" for **ت** and "d" for **ڈ**; similarly, "t̤" for **ٹ** and "d̤" for **ڏ** (see the table of transliteration, J.R.A.S., dated October, 1902), I think, this is not correct, because whenever an Englishman pronounces "t" and "d" they sound nothing but **ٹ** and **ڏ** (respectively). Hence, in my opinion, **ٹ** must be written as "t" and **ڏ** "d"; similarly, **ت** as "t̤" and **ڈ** as "d̤".

² The Nagpur University Journal, No. 3 (1937).

³ Maqālat-i-Urdū (Aligarh), p. 21.

childhood, came to Jubbulpore (C.P.) with his saintly father Maulānā 'Abdu'l Wahhāb Khān of Ghurghushtā. But I do not know how it happened to come in his possession. It originally belonged to some Sayyid 'Abdu'llāh Khān and Sayyid 'Atā'u'llāh Khān Husaini of Shāhjahānābād (Delhi).⁴ It is their personal diary, written in Persian (though in an illegible nasta'liq character) for eighteen years, i.e., from Rajab, A.D. 1221 (= A.D. 1806) to Dhu'l-qa'da, A.H. 1239 (= A.D. 1824). By reading the manuscript, I understand that the said two men (specially 'Abdu'llāh) were very popular experts in Geomancy in their age; and people, from far and near, used to flock to them for knowing certain things about their future; e.g., whether their journey would be prosperous for them; or, when certain relatives of theirs would reach them; or, when the sick would be cured, etc. These Geomancers (and specially 'Abdu'llāh) further appear to have been able to give correct answers to all questions that were put to them; and for this purpose it was enough for them to examine the horoscope or to consult certain points of Geomancy. They also write that their prophecies ever proved correct.

As it is a personal diary of the said Geomancers, they did not hesitate to write in it certain other things also; e.g., some talismans, and also some medical prescriptions given to them by certain people like Mir Muḥammad Naqī Rizvī of Lucknow, Ghulām 'Ali, Sayyid La'l Shāh Husaini, etc. But we have no concern with these things. The real importance of the manuscript, for our purpose, lies in the "Fālnāma" of Hazrat Sharfu'd-Dīn Ahmad Vāhyā Manīrī, written therein twice by 'Abdu'llāh, who clearly asserts that it belonged to that saint. Before copying it out for the scholars I would like to say here something about the life of the saint himself, whose contribution to the earliest Urdu, in comparison to a few other saints, is perhaps the greatest in quantity, if not much in quality.

⁴ At various places, in the manuscript, when some note or passage ends, it is written عبد الله خان = (This) slave, 'Abdul'lāh Khān, a term, applied to none but to himself. Similarly, at some other places, it occurs: این حقیر سید عطاء الله حسینی = This inferior, Sayyid 'Atā'u'llāh Husaini, to which sometimes "Khān" is also added; but only once "Shāhjahānābādi" follows that name.

Life of Hazrat Sharfu'd-Din Yahyā Manīrī⁵

Hazrat Sharfu'd-Din Ahmad Yahyā Manīrī was born at Manīr (hence called Manīrī), a place in Bihār, in A.H. 662⁶ (= A.D. 1264). He was a disciple of Shaikh Najibu'd-Din Firðawṣī⁷ (died in A.H., 733 = A.D., 1333), the disciple of Shaikh Ru'knu'd-Din Firðawṣī⁸ (died in A.H., 724 = A.D., 1324-25), the founder of the Firðawṣiya order of saints in India. In his early age Manīrī went to Delhi to see Hazrat Nizāmu'd-Dīn Aūliyā of Baḍāyū⁹ (the modern Badaun, U.P.) (A.H. 634-725) (A.D. 1235-1326) who had, by then, expired.

According to Professor Hāfiẓ Maḥmood Shirāni, our Manīrī reached Delhi in A.H. 725¹⁰ (= A.D. 1326). Shaikh Najibu'd-Din Firðawṣī came to the outer skirts of the city to greet him, saying that he had been awaiting him for the last few years in order to give him his share (of sanctity). Sharfu'd-Dīn Manīrī took that share (*i.e.*, became his disciple) and returned homewards. He came to the hill of Rājgīr (in Bihār), where for years he deeply prayed to God in seclusion, unknown to anybody but to Maulānā Nizāmu'd-Dīn Maghribī, who too was a disciple of Hazrat Nizāmu'd-Dīn Aūliyā. Hazrat Ashraf Jahāngīr Samnānī¹¹ (a long-lived saint, who died, in A.H. 808 = A.D. 1406, at the age of 120 years at Kichhochha, Faizabad, U.P.) writes in his book "Laṭā'iṭ-i-Ashrafi":—On the death-bed of Sharfu'd-Dīn Manīrī, people asked him, "Who will lead your death-prayers (requiem)?" He replied, "To-morrow a Sayyid (referring to Jahāngīr Samnānī himself), who has given up his kingdom for the saintly life and who knows the Holy Qurān by heart, will come to lead my death-prayers." And so it happened.

The writer of the *Mi'rāju'l-Wilāyat* says, "When Sharfu'd-Dīn Manīrī was being put in the grave, he raised one hand as if he was asking for something. All people got surprised to see this. They then approached Sayyid Ashraf Jahāngīr Samnānī, who bowed his head in 'meditation' (مَعْبُودَةٌ) when Manīrī told him that he had left, in the hill of Rājgīr, a cap, which had

⁵ For his life I have consulted *Khazinatu'l Aṣfīyā*, Vol. II, pp. 293-92.

⁶ Maulana Abdul Haque, "Urdu ki... Sufiya kā kām," p. 19.

⁷ For the detailed study of his life see *Khazinatu'l Aṣfīyā*, Vol. II, pp. 278-88.

⁸ *Ibid.*, p. 286.

⁹ *Ibid.*, Vol. I, pp. 328-39.

¹⁰ *Punjāb mē Urdu*, p. 144.

¹¹ For his life see *Khazinatu'l Aṣfīyā*, Vol. I, pp. 371-77, and for his literary activities my essay in *J.U.N.*, No. 3, p. 74.

once been given to him from the Hidden World. The cap was soon brought there from the hill. Manīrī took it into his grave, and was then buried." According to the same writer, we know that Manīrī died in A.H. 782 (= A.D. 1381). The writer of the Khazinatū'l-Asfiyā gives twice the date of Manīrī's death in a chronogram, as following :

شیخ شرف الدین منیری رہنے والے راجح - متدارے دین احمد ، عالم و فاطم شریف
 سال تحریکش خوشنام از خود آمد ندا - سالک کامل شرف ، هم صاحب کامل شریف ^{۱۲}

He left three books behind him : (1) Ma'danu'l Ma'ānī, (2) Irshādu's-Sālikin and (3) Sharh-u-Ādābil Muridin.¹³ These are all in Persian, with which we have no concern here. The important writings of his pen, for our purpose, are those that are in Urdu and still preserved in the Oriental literature through the attempts of the various scholars. Professor Hāfiẓ Maḥmood Shirāni has quoted a lengthy "کچھ مددوہ", of Manīrī, of about 35 lines.¹⁴ Besides his one sentence "دیس بھلا پر دوڑ", there are his three verses as well, that have been quoted by Maulānā Sulaimān Nadī.¹⁵ They are as following :

لودھ ، پٹکری ، مردا سگ - پڑی ، زیرا ایک ایک ٹنک
 افیروں چشم بار ، وحص جار - اُر پھر موخا اس میں ڈار
 پست کے پان پوٹھی ترے - نینا بیڑا بل میں ہرے

This is a medical prescription (which proves to be a sure cure) for eye-sore. Mr. Abu'l Laith has also mentioned three Urdu verses of Manīrī as following :

لودھ ، پٹکری ، مردا سگ - پڑی ، زیرا ایک ایک ٹنک
 افیروں چشم بار ، وحص جار - اُر پھر موخا اس میں ڈار
 شرفا لور پست کے پان پوٹھی ترے - نینا بیڑا بل میں ہرے ^{۱۶}

Now I copy out the "Fālnāma", which is twice found in my (Persian) manuscript, and which will be one of the few most important specimens of the earliest Urdu.

¹² Khazinatū'l Asfiyā, Vol. II, p. 292.

¹³ *Ibid.*, p. 201.

¹⁴ *Punjāb mē Urdu*, pp. 144-46.

¹⁵ "Maqālāt-i-Urdū (Aligarh)," p. 20.

¹⁶ *The Aligarh Magazine*, dated April, 1936, p. 69.

First copy of the " Fālnāma " :—

بِسْمِ اللّٰہِ الرَّحْمٰنِ الرَّحِیْمِ	
فَلَنَّا مُهَنْدِرِی (اردو) حضرت شرف الحق والدین بھی میری قدس اللہ ترہ العزیز -	
اوں باید کرو ہنگامہ درد م حاجت خواہد - فاتحہ و سورہ اخلاص بر روح شریف ایشان	
بخواند و در تکمیل سلطنت عالمہ علیحدہ بکشد - بعدہ تے گان ہستگان طرح دیوب در اندر	
آپ باقی ماندہ جو ہند کرد - بعدہ برداشتہ پڑا نظر کرد - از فعل الہی ہاں بر آید وہاں	
شود - دیوب باید کر ایں نقش ہم حقیقت دارد -	
۱۲۳	۱۲۲
جو من کی مناسک نہ نہیں کرتے کیم کھم تھاری	من جن دولاو اس تھاری
سوئی ہوئی ہوئے نسبت لائی بات ہے پوجہ کبھو کہیں	کرم لائی بات ہے
۱۲۱	۱۲۰
نہیں ابھی نہیں من چنتا ہو وے نہیں نیکا	پھل پھول پاؤ ابھی نہیں
پیر بتھا نہو وے پاؤ پیر بتھا کے اور کام کریں	سده ہو وے گی بیٹھ رہو گھر جائے
۱۲۹	۱۲۸
پیر بتھا نہو وے ابھی ہو وے	جوت مانگو کھجت دولاو
تھارے اس پتھام کرے پیر بتھا کے	منسا پوجہ اس تھاری پوجہ
۱۲۷	۱۲۶
جاے پھر بھول ابھی نہیں	ابھی دور کام راج اجل کے
لیو گھر راج پاٹ جن اکتا و	جن چاہو سنتا و دیا تم کرو
۱۲۵	۱۲۴
رب سکم پاؤ جو من کی ہے	تمارے کرم لائی
۱۲۳	۱۲۲
نہیں کھوں ہو وے نہیں ابھی نہیں	سر پوچے بت ہے اس پوجے
پورے کی اس بچے	کرم لائی بات ہے بیٹھ رہو گھر جائے

In this " Fālnāma " No. 311 and its words are written twice; so, counting them to be one, the total number of the sentences will be twenty-eight. The above chart is a true copy of the original one, both in the words as well as in their demarcation. Now, in the same way I copy out the other one.

Second copy of the "Fālnāma" :—

- ۱۱۱ جو من کا من سوئی ہوئے ۱۱۲ جن آتنا و ہوئے کا کاج
 ۱۱۲ ڈن اپیں کیتھ کر ہو نصیب لگی ہیات ۱۱۳ بچ تھاری آس پوچے گی
 ۱۱۳ من جن دولا وہ کرم لگی ہیات ۱۱۴ آس تھاری پوچے گی
 ۱۱۴ ڈن اپیں ابھیں ناپیں ۱۱۵ جو من چنتا ہوئے پا اوس تھار کے
 ۱۱۵ ناپیں ہے گا اور کام کر دو ۱۱۶ جو من مانگو من کی منا پوچے
 ۱۱۶ کمپت دولا وہ تھاری آس پوچے ۱۱۷ جاؤ من پور تھد راج ہوئے
 ۱۱۷ ابھیں ناپیں سستا و جن آتنا و ۱۱۸ ایکو چنتا ناپیں لیو جائے بھر پور
 ۱۱۸ دور مت جاو کام ہو سستا و ۱۱۹ ایکل دیا رب تھلوں
 ۱۱۹ ڈن بُلک دن بُرے لگے اس کھو پوچے ۱۲۰ جو من کی منت ہوئے پوچے گی اس
 ۱۲۰ ڈن اپیں ابھیں ناپیں۔ بیٹھر ہو کر جائے ۱۲۱ سری سمائے ہوئے تھار چنتا مت کرو
 ۱۲۱ ابھیں ناپیں ہوئے گا ۱۲۲ سستا ہوئے جن آتنا و
 ۱۲۲ چل پھول پا وہ۔ بیدھ ہوئے ۱۲۳ ناپیں لوکھر پرالیسے کرم لگی ہیات
 ۱۲۳ جو من کی منا ہوئے پوچھ کئئے اس ۱۲۴ ابھیں ناپیں۔ آگے ہوئے
 ۱۲۴ بُرے دن ۔۔۔ اب سکھ سدا ہوئے

N.B.—The words marked with "S" in both the tables, although with slight differences, have been mentioned by Maulāna Sulaimān Nadvi,¹⁷ and I do not want to repeat them unnecessarily in this essay. Only so much collation is quite sufficient for the critical study of the "Fālnāma".

¹⁷ "Maqālat-i-Urdū (Aligarh)," p. 21.

Authenticity of the Fālnāma

We now understand that the said "Fālnāma" is really rare, if not unique. Although Maulānā Sulaimān Nāqvi says that he has seen it, containing twenty-seven sentences,¹⁸ but that is not more than a mere reference, and, fortunately, this is the first time that it is being published here. For its authenticity, the first proof is that 'Abdullāh clearly asserts that it belonged to Ḥazrat Sharfu'd-Din Yahyā Manīrī; and perhaps merely for the sake of some probable collation he has written the "Fālnāma" twice, so that the slight differences, occurring in them, might also be preserved. The second proof is that the eight sentences mentioned by Maulānā Sulaimān Nāqvi are identical with those of the above tables of the "Fālnāma". For the third proof, I should say that according to the same Maulānā (whose authority can never be challenged), there are only twenty-seven sentences in all, and really the second copy of our "Fālnāma", written above, contains only so many. It is only the first one, which contains one more sentence (hence all counting twenty-eight). But such slight discrepancy is not to be considered serious.

We know that the "Fālnāma" was originally written in Bihār about seven centuries ago; but even then it was preserved intact even in the book of persons belonging to the Delhi province. This much is enough evidence for the popularity which it seems to have attained on Ḥazrat Manīrī's arrival at Delhi in A.H. 725 (= A.D. 1326). The slight differences, which are noticed in the collation, are perhaps due to the fact that several persons remembered it, and with the help of their memory they later put it on paper; and this is another proof of its popularity and also of the attention paid to it by the people of a period as late as about six centuries after the saint.

Criticism of the Language of the "Fālnāma"

In this connection two points must be borne in mind; firstly, that the language of the "Fālnāma" is as old as about seven hundred years, being one of the oldest specimens of the Urdu language that are yet known to the world; and secondly, that, as Ḥazrat Sharfu'd-Din Yahyā Manīrī belonged to the 'eastern province' (i.e., Bihār), naturally his language must have been coloured, as it is, in the native hue. We should now proceed to criticism. In spite of its antiquity, there is hardly a sentence in the "Fālnāma", which we cannot understand to-day. On the contrary, if we look at the

¹⁸ "Maqālat-i-Urdū (Aligrāh)," p. 20.

contemporary or later specimens of Urdu, spoken or written in the Deccan or Gujरात, we find that there are hardly a few lines which we can understand to-day. For this verification the language of the "Maqsūdu'l-Āshiqīn" of Sayyid Hāshim Bijāpūrī¹⁹ (d. 1649 A.D.), the "Khazāna-i-Rahmat" of Bahā'u'd-Dīn Bājan²⁰ (d. 1507 A.D.), etc., may be seen. But if we compare the language of Hazrat Manīrī with that of other contemporary or later saints of Northern India, e.g., Hazrat Amīr Khusraw²¹ (d. 1326 A.D.) or Hazrat Ashraf Jahāngīr Samnānī²² (d. 1405 A.D.), we find that there is very slight difference, and the language of Northern India of the thirteenth or fourteenth century A.D., in comparison to that of Southern India of even later centuries, is more easily understood to-day and is really laudable. I think this is due to the fact that the influence of the Oriental languages, e.g., Arabic, Persian, Sanskrit, etc., was more easily felt in Northern India (there being the seats of their learning) than in Southern India; and this is the reason why the language of the former is more akin to that of to-day.

Now I should point out a few words of the "Fālnāma", which have to-day given place to new ones and are now obsolete; e.g., کیتو کر ہو has been changed into لوبہ ; خوب into سدھ ; کچھ کرو into فایدہ ; بورا دو گا into بورا دو گا ; پوچھ into پوچھ وہ into پوچھ وہ . But this is only a slight alteration of the language, with which we are never unacquainted. Anyway, the importance of the language of the "Fālnāma", which is about seven centuries old, will never die as long as Urdu lasts in the World.

¹⁹ Shamsu'llāh Qādri, Urdu-i-Qudim, p. 25.

²⁰ Ibid., p. 46.

²¹ My essay in J.N.U., No. 3, p. 73.

²² Ibid., p. 74.

REVIEWS

Annual Report of the Archaeological Department, Baroda State, for the year 1936-37

LIKE Mysore, Hyderabad, Gwalior and some other progressive Indian States the Baroda State now maintains an Archaeological Department of its own. The report under review is of the activities of the Department during the year 1936-37 under the able direction of Dr. Hiranand Sastri, Retired Government Epigraphist for India.

The report describes conservation work carried on at Dabhoi, Pāṭan, Bārdia and some other places. It also mentions some other monuments not previously noticed by archaeologists. Of these two deserve special mention, viz., the exquisitely carved *torāṇa* or gateway and the Śitalā Mātā temple, both at Piludrā in the district of Mehsānā. The former resembles in some respects the beautiful *torāṇa* erected by the Kalachuri king Yuvarājadeva I at Gurgi in the Rewa state, which has, in recent times, been removed to the Maharaja's palace at Rewa.

The Baroda State deserve thanks for having at last undertaken the long-projected work of excavation at Pāṭan (ancient Anahilapattana), an old capital of Gujarat, which was founded about the Vikrama year 802. The work so far done has brought to light the remains of a temple built mostly in white marble and some other structures, which, in the opinion of the Director, are likely to furnish a clue to the situation of the Sahasralinga tank excavated by Siddharāja, a famous king of Gujarat.

During the course of excavation at Amreli the Director was fortunate to light upon a hoard of 2000 silver coins of Kumāragupta I who came to the throne in A.D. 413. The present volume does not give a detailed account of this hoard; but notices some important coins of the Western Kshatrapas. Two of the potin coins of Viradāman are said to bear clearly the dates 157 and 158 and thus furnish the evidence, which was hitherto wanting, for Rapson's view that the Kshatrapa ruler ascended the throne in the Śaka year 156.

The report is beautifully illustrated with photographs of buildings, images and coins conserved or discovered during the year. By way of an Appendix there is added to it an English translation, by Dr. Vogel, of an extract from the work of the Dutch clergyman François Valentijn, who was in the service of the Dutch East India Company in India from 1623 to 1632. He was a keen observer and the account he has left of the situation, inhabitants, trade and manufacture of Baroda (which he calls Broderā) makes interesting reading.

V. V. M.

New Indian Antiquary, Vol. I, Nos. 1 & 2

WHEN more than five years ago, the Indian Antiquary ceased publication, it was feared that the cause of Indology would suffer from the lack of an efficient organ for the interpretation and reconstruction of India's heritage. But the New Indian Antiquary seems to dissipate that fear and bids fair to undertake and continue the valuable work of its predecessor. The first two issues that are before us, contain some very learned articles on a variety of subjects ranging from Buddhistic philosophy to the maritime activities of the Marathas. In the first issue of the *Journal*, the article by S. K. De, Esq., is by far the most original and illuminating. Some of his observations on the Buddhist Tantric literature deserve careful scrutiny, and we may quote one below :

" The homage paid by the Kashmirian Abhinavagupta in his *Tantraloka* would place Matsyendranātha earlier than the beginning of the 11th century ; and if he is identical with Lui-pada his probable date would be the beginning of the 10th century. As the reputed founder of the new school of Sahaja-siddhi, he is connected with a series of teachers, whose writings are preserved mostly in the Apabhramsa and the vernacular. But in its earlier stages the Sahajasiddhi represented by these teachers start apparently as a deviation from the *Vajra-yāna* and *Mantra-yāna* ; while in these cults are to be found the source of the Nātha cult, which calls itself Saivite but which shows greater affinity with the Buddhist than with the Brahmanical Tantra. The cult must have been introduced early into Tibet and Nepal, where Matsyendranātha came to be identified with Avalokitesvara, while in India his apotheosis occurred by his assimilation to Siva."

Equally learned though less original is the article by Pandit Nilkantha Sastri on Southern India, Arabia and Africa, in which he discusses the commercial and cultural connections between these countries. Dr. A. K. Coomaraswamy's notes on the Kaṭha Upanisad throw a new light on some of the obscure passages of that important Upanisad ; while Mr. V. V. Gokhale's article on Avijnaptripura seeks to elucidate one of the controversial topics in Buddhistic religious thought.

The second issue of the *Journal* also contains some learned articles, of which " Echo-Words in Toda " by M. B. Emeneau, Esq., and " Sambhaji Angria : 1733-1741 " by Dr. S. N. Sen deserve special notice. It is a pity, there is not a single article on Indian Archaeology, Epigraphy or Numismatics in any of these two issues. But since this is only the start of the venture, this deficiency need not discourage us. We hope these and other topics connected with Indology will gradually receive the attention they deserve,

and we will have a journal comprehensive in scope and authoritative in character.

In conclusion we offer our congratulations to the Publishers and Editors on their excellent performance, and extend our full sympathy and co-operation for the task they have undertaken.

H. N. S.

KALIDAS

His Birth-Place and Date

By T. J. KEDAR, ESQ., B.A., LL.B.

THE birth-place and date of Kalidas are moot points of Indian History. Scholars are divided in their opinions till this day and in the absence of historical data, it is not possible to achieve anything like certainty in the matter. Generally speaking, there is an agreement that Kalidas must have lived some time between the second century B.C. and fifth century A.D. Failing any archaeological or other discoveries, our only alternative is to probe into his accredited writings and find out from the internal evidence furnished by them, such data as would throw some light to clear up the darkness that hovers round the great event in Indian History.

A very important clue is furnished by the *Meghaduta* which describes the geographical situation existing in the time of Kalidas, with a great deal of accuracy. In his journey to the north, the Megha (cloud) passes over "Vidisha" which is described as the capital (राजधानी) of Dasharnas.

"तेषां दिक्षु प्रथितविद्यालक्षणं राजधानीम्"

Meghaduta, stanza 24.

The capital was far-famed in all directions—in other words it was an Imperial city and here is a land-mark of great importance. We have to find out the exact epoch during which Vidisha had attained this position in the period between second century B.C. and fifth century A.D.

According to Mr. Rapson (*Cambridge History*, Vol. I) "Vidisha was the capital of Eastern Malwa, then known as Akara and was associated with the Sunga dynasty which established its sway on the ruins of the Mauryan empire. The situation of Vidisha was also very favourable for its importance. It occupied a central position on the lines of communication between the sea-ports of the western coast and Pataliputra and between Pratisthan, the western capital of the Andhras on the south-west and Çravasti on the north-east." Agnimitra, the second of the Sunga kings, held his court at Vidisha as is mentioned in Kalidas' drama *Malavikagnimitra* while his father, Pushyamitra reigned at Pataliputra. During the reign of the last Mauryan emperors, there was no possibility of Vidisha being a capital as Malwa was

under the sovereign rule of the Mauryas. Pushyamitra himself was a general of Brihadratha, the last Mauryan emperor, and it appears that Agnimitra was placed in charge of eastern or western and eastern Malwa as a Viceroy.

But after the murder of Brihadratha, when Pushyamitra assumed charge of the Mauryan empire, there was no objection to Agnimitra describing himself as a king. There is every reason to hold that Vidiça came to be described as a capital for the first time after 184 B.C. which marks the military *coup d'état* of Pushyamitra. Pushyamitra seems to have ruled for 36 years and it is not known whether he assumed the title of emperor. The seat of his Government was at Pataliputra as stated before. The language used in *Malavikagnimitra* sounds as very peculiar :

“कञ्चुकी—अयं पुनरिदानीं देवस्य सेनापते: पुष्पमित्रस्य सकाशात् प्राभृतको लेखः प्राप्तः ॥”

Malavikagnimitram, Act V.

“Here is a letter accompanied by a present received from the commander-in-chief Pushpamitra” and these words are put in the mouth of the chamberlain.

Even the Queen Dharini, the daughter-in-law of Pushyamitra, says :

“ अतिभार खलु सेनापतिना नियुक्तो मे पुत्रकः ॥”

“In a mighty task has my son been engaged by the commander-in-chief.”

Even Pushyamitra describes himself as a commander-in-chief in his letter :

“ यज्ञशरणात् सेनापतिः पुष्पमित्रो वैदिकिश्चं पुत्रमायुषमन्तं लेहात् परिष्वज्यानुदर्शयति ॥”

“From the sacrificial ground the commander-in-chief Pushyamitra intimates to his son Agnimitra at Vidiça after affectionately embracing him.”

This description applies to the state of things which existed a short time before 148 B.C., i.e., towards the close of Pushyamitra's rule. Perhaps it was thought prudent not to assume the title of emperor as the rise to power was through a sinful process. Anyway, Agnimitra is the king during the life-time of his father and Vidiça is his capital.

In *Malavikagnimitram*¹ reference is made as stated above to the horse-sacrifice performed by Pushyamitra towards the close of his reign, at Pataliputra and invitations are sent from Pataliputra asking Agnimitra to attend the sacrifice. Agnimitra is given by the *Puranas* a reign of eight years and there is nothing to show that he had shifted his capital to Pataliputra.

¹ Act V, *Ibid.*

The Kharvel inscription which is said to be dated 156 B.C. points out that the Kalinga King Kharvel harassed the king of Rajgriha who fled at his approach in the eighth year of his reign. In the twelfth year, he produced consternation among the kings of "Uttarapath", humbled the king of Magadha and "according to Mr. Jayaswal's translation which is not undisputed brought back trophies which had been carried away by King Nanda". There is, therefore, reason to suppose that Pataliputra was not a safe place and Agnimitra continued to rule at Vidisha after the death of his father.

Nothing of importance has been discovered in Agnimitra's reign, from which the capital could be said to have become famous in the world. Nor was the period of the rule also very long. Agnimitra was succeeded by his valiant son Vasumitra, though there is some dispute about it according to the narration of the *Puranas*. According to Mr. T. S. Narayan Shastri,² the manuscript copy of *Matsya Purana* in his possession shows that Vasumitra succeeded Agnimitra and Vasujyestha comes after Vasumitra. We are not concerned with the accuracy of the description as given by the *Puranas* but practically all the *Puranas* agree that there were ten Sungas who ruled for a total period of 112 years. The last king was Devahuti or Devabhuti who undoubtedly ruled at Vidisha. Bhagawat who was the predecessor of the last king had an unusually long reign of 32 years to his credit. His reign falls between 112 B.C. and 81 B.C. The Besnagar inscription which was discovered a few miles from Vidisha—which by the way, is identified with the modern Bhilsa—records that the stone column (*Garud-stambha*) was erected in honour of Krishna (Wasudeo) by the Yavana (Greek) ambassador Heliodorus, son of Dio, an inhabitant of Takshaçilā, who had come from the Greek King Antialcidas to King Kashiputra Bhagabhadra, then in the fourteenth year of his reign. Writes Mr. Rapson in his *Cambridge History* : "The inscription is full of interest. It testifies to the existence of diplomatic relations between the Yavana king of Takshaçilā and the King of Vidisha (Bhilsa); and it proves that already at this period some of the Yavanas had adopted Indian faiths for Heliodorus is styled 'a follower of Vishnu' (*Bhagavata*)."

There is thus ample ground for inference that by 98 B.C. the fame of Vidiça had travelled as far as Takshaçilā and diplomatic relations existed between the Greek rulers of Takshaçilā and the ruler of Vidiça. It must not be supposed that the kingdom of Vidiça was confined only to both eastern and western Malawa. Evidence is not lacking to show that at Bharut in the Nagode State—185 miles to the north-east of Vidiça, two gateways

² See *Age of Shankar*, by T. S. Narayan Shastri.

have been discovered, dated in the sovereignty of the Çungas. "One of these was erected by Dhanabhuti Vachchi-puta, i.e., son of the Princess Vatsa (Kausambi) and the other by some member of the same family." Another inscription at Mathura confirms this record and it appears that the particular family ruled at Bharut and was a feudatory of the Çungas. The kingdoms of Kauçambi—80 miles north-east of Bharut and Ahichhatra—250 miles north-west of Kauçambi were also feudatories of the Çunga dynasty.

The Pabhosa inscription records, according to Dr. Jayaswal, that the cave was excavated during the reign of Ordraka, the fifth of the Çunga kings. Pabhosa is a hill in the Doab between the Jamuna and the Ganges and is close to Kosam with which the ancient city of Kauçambi is identified.

So there is every reason to suppose that during the reign of Bhagabhadra or Bhagawat, the kingdom of Vidiça was at the zenith of its glory and if Kalidas lived in this period he would very appropriately, describe Vidiça as

"तेषां दिक्षु प्रथितविदिशालक्षणं राजधानीम् ॥".

It must not be forgotten that the reigns of the fifth, sixth, seventh and eighth kings were abnormally short, amounting together to only 17 years. This distinctly points to a period of confusion during which palace revolutions were frequent.

It is significant that the description as राजधानी has not been applied to any other city by Kalidas in the whole journey of the Megha from Ramgiri to Alaka—no, not even to Ujjain. Ujjain was not the capital city of any kingdom, during the Çunga period. It was undoubtedly a great city famous for its sanctity and commerce. But no king as such seems to have lived there during the Çunga period. Ujjain was under the suzerainty of the Mauryas and with break up of the Mauryan empire, it came very likely as a heritage to the Çungas.

It has been stated above that Ujjain was not a capital and could not be a capital of a kingdom—far less a world-famous capital—during the Mauryan rule. It was not a capital of any kingdom during the Çunga period. After the overthrow of the Çungas which took place by 72 B.C. there came either the Kanvas or the Andhras. Scholars are not agreed as to whether the Kanva dynasty or the Andhra dynasty ruled at Pataliputra upto 27 B.C. But one thing is certain that nothing is heard about Vidiça after 72 B.C. The political centre of gravity seems to have shifted to Ujjain, from Vidiça.

A new power had come into existence at Pratisthan (Paithan) and the Shatkarni kings began to extend their sway far and wide in the beginning of the first century before Christ. Just about this time, a few years later, about

75 B.C. there arose another formidable power in the West. The Çakas of Seistān had occupied the delta of the Indus and advanced to Ujjain and tradition says that they occupied it until they were expelled after a short time, by the glorious Vikramaditya who founded an era in 57 B.C. Rapson suggests that Vikramaditya was connected with the Andhra dynastry of Pratisthan but we have nothing more than a suggestion in this matter. Anyway, an inscription on one of the Bhilsa topes (*Sanchi Stupas*) records a donation made in the reign of Çatakarni. The inscription is not dated but there is now a general consensus of opinion among archæologists that it probably belongs to the middle of the first century B.C.

Says Sir John Marshall in his *Guide to Sanchi*, at page 12 :

"The power of the Sungas endured for a little over a century, i.e., until about the year 70 B.C. but whether they were supplanted by the Kanvas or the Andhras, is open to question. The Andhras had long been dominant in the west and south of India and there are reasons for inferring that they extended their sway over Eastern Malwa at least two or three decades before the beginning of the Christian era."

A Jain legend known as *Kalakacharya Kathana* gives some countenance to the theory of Shaka invasion of Ujjain. The legend records that the Jain saint Kalakacharya was insulted by King Gardabhilla of Ujjain and so the former went to the land of the Çakas and pursued a number of Çaka satraps to invade Ujjain and overthrow the dynasty of Gardabhilla. Some years afterwards, Vikramaditya, the son of Gardabhilla, repelled the invaders and re-established the throne of his ancestors.

The net result is that by about 57 B.C. Ujjain became a capital and Vidiça ceased to be the capital, never again to be a capital in the march of time. The Andhras ruled over Malwa and other countries and their dynasty is credited with a rule of over 400 years by the *Puranas*. They seem to have had two seats one at Pataliputra and another at Pratisthan. They were followed by the Great Guptas whose rule takes us to the close of the fifth century A.D. The rise, growth and end of Vidiça as a capital of a kingdom of importance can only be traced to the Çunga period and no other period between second century B.C. and fifth century A.D. and it follows that Kalidas must be placed in the Çunga period.

His drama *Malavikagnimitra* depicts an episode in the life of the second Sunga king. It narrates the conquest of Berar (Vidarbha) by Agnimitra and the horse-sacrifice of Pushyamitra as well as the victory obtained by Vasumitra over the Yavanas. It does not stand to reason that a poet living in the Gupta times, will compose a drama on the life of a king who lived at least

300 years or more before his time and yet give fairly accurate details of those times, in his composition. The greater probability is that the drama was composed when the incidents were fresh in the memories of the people.

At one time I was strongly inclined to the view that Kalidas was a contemporary of Agnimitra and I chiefly relied on the Bharatavakya of *Malavikagnimitra* :

आशास्यमीति-विगमप्रभृति प्रजानाम् ।
सम्पत्स्यते न खलुगोपरिनामिभिर्वा ॥

This obviously shows that both the king and the poet were contemporaries. But there is a similar Bharatavakya in *Mudrarakshasha* :

“ स श्रीमत् चन्द्रभूत्यश्चिरमवतुमहीं पाथेकोऽवनितवर्मा ”

Apart from this, the presentation of Agnimitra and his wives would not have been in good taste during the life-time of Agnimitra or his son or brother. I was in fact prepared to allow a departure from the dramatic technique in the case of Kalidas as generally the subject-matter of a drama must be “ नाटकं रुद्यातवृत्तं स्यात् पश्चसंविसमन्वितम् ”. I have since changed my opinion and on historical data which I am placing before the readers, I feel I am justified in maintaining that Kalidas flourished during the time of the Cungas and this was the reason why he chose incidents in the life of one who was practically the first king of the Cunga dynasty for portrayal in his first drama. He was a protégé, it appears, of the Cungas and if we place him towards the latter half of the reign of Bhagabhadra or Bhagwat, he saw both the prosperity and the end of the Cunga rule. If this conclusion is correct he could not have flourished after more than 50 or 60 years from the death of Agnimitra.

Another statement in the *Meghaduta* about the life at Vidiça attracts our attention.

यः पण्यस्त्रीरतिपरिमलोद्वारिभिर्नागरणाम् ।
उद्धामानि प्रधयति शिलवेशमभिर्यैवनानि ॥

Meghaduta, stanza 25.

“ The hillock proclaims through its stone-caves which enrich the scents associated with the amorous dalliances of prostitutes, the unrestrained youthful lives of the citizens.”

Was this the only picture to be presented in respect of this great capital of Central India? But perhaps, there was no help. The last Cunga king Devahuti or Devabhuti was a libertine and a rake. In the *Kallyuga Raj Vrittanta*, the following description occurs :—

विहाय पाटलिपुत्रं विदिशायां सुखास्थितः ।
 अन्यायेन पुरलीभिविहृतुसुपचक्षमे ।
 अर्कशृतश्च कितवैर्वृत्तो नर्तकगायनैः ।
 सुरामांसाशनो मतो वारलीसङ्गलालसः ॥

"The king living comfortably at Vidiça, without caring for Pataliputra started illegally enjoying the damsels of the city. He gambled, he loafed, moved among dancers, drank and ate heavily, and was ever to be found in the company of prostitutes."

It is said that his minister managed to supply a विषकन्या in the form of a slave girl and secured his death. If Kalidas lived towards the end of Bhagabhadra's rule and wrote his *Meghaduta* during the reign of Devahuti, who will say that the reference to prostitutes was not appropriate? It seems that at the time *Meghaduta* was written, the licentiousness of the king had permeated the society itself and the open prostitution paraded in the above lines from *Meghaduta* was the order of the day. To us it appears to be an overdrawn picture but when the king degrades himself to the state of a beast, nothing better can be expected from the nobility and others (यथाराजा तथाप्रजा).

It seems to me that Kalidas wrote and staged his drama *Malavikagnimitra* some time before 72 B.C., preferably in the reign of the dissolute king Devahuti. The love-intrigues of Agnimitra would be a proper subject for the representation in the drama. Cunga family was inordinately devoted to the stage and Sumitra one of the sons of Agnimitra was attacked in the midst of his favourite actors by one Mitradeva "who severed his head with a scimitar as a lotus is shorn from its stalk (*Bana Harshacharita*, Ch. 6). Ganadas in *Malavikagnimitra*, the preceptor of music and dancing, strikes me as an alter ego of Kalidas. For who, but the great Kalidas, could have given the grand conception of a drama in the four lines put into the mouth of Ganadas.

देवानाभिदमामनन्ति सुनयः कान्तंकर्तुं चाक्षुषम् ।
 रुद्रेणदमुभाकृतव्यतिकरे स्वाङ्गं विभक्तं द्विधा ।
 त्रैगुण्योद्भवमत्र लोकचरितं नानारसं हृश्यते ।
 नात्यं भिज्ञहर्चेर्जनस्यबहुधाप्येकं समाराधनम् ॥

Malavikagnimitram, Act I.

As a representative of the मालवगण Kalidas could justly appear in the rôle of गणदास. Owing to his great abilities, Kalidas, in all probability, enjoyed Royal patronage and was a servant of the crown. Life becomes uncertain in an atmosphere of intrigues and machinations and Kalidas may have been sent out of the country for a year for some lapse of duty

(स्वाधिकारात् प्रमत्तः).³ The Yaksha in *Meghaduta*, in my opinion, is again a reflection of Kalidas who had perhaps to serve his one year's sentence in exile at a distant place. The choice of Ramgiri, the modern Ramtek near Nagpur, could well be justified as it was a sacred place and was resorted to by great seers like Nagarjuna.

It seems Kalidas started on his tour of the south some time after he wrote his *Meghaduta*. Otherwise we would have expected the journey of the megha to begin still lower down. The worship of Ramchandra and Janaki at Ramgiri seems to have given Kalidas the idea of writing an epic on the race of Raghus. This must have been done after 72 B.C., i.e., after the end of the Çunga rule for *Raghuvamsha* abruptly ends with the life of king Agnivarna, another over-libidinous prince. It is over-indulgence which is the cause of premature death in both the cases. Both were childless but surrounded by a host of queens. We have no means in our possession to know whether any posthumous son was set up by the queens to rule after Devahuti. Kalidas perhaps knew it. The composition of *Raghuvamsha* will have to be placed some time after 70 B.C.

As Vidisha lost its greatness and Ujjain became all in all, Kalidas must have migrated to or gone back to Ujjain of which he was ever proud. The composition of *Vikramorvasiyam* can be placed about 57 B.C. when Vikramaditya was at the height of his power. उज्ज्यव्ली seems to me to be personified in उज्ज्वली and the drama may aptly be described as a representation of “Ujjain regained through valour”.

There cannot be any doubt that *Shakuntala* is the last drama of Kalidas, composed by him in his last days. There was then no thought of riches, enjoyment or fame, before him. His mind dwelt on his deity, day in and day out.

ममापिच क्षणयतु नीललोहितः ।

पुनर्भवं परिगतशक्तिरात्मभूः ॥

“ May the self-born Nila-lohita (Shiva) whose power is manifest all round, cancel my rebirth.” It is the *moksha* (absolute *Nirvana*) that he aspires for.

I have forgotten to make a suggestion about *Kumarasambhava*. It was pre-eminently the first composition and will have to be placed in the days of Kalidas' youth and these will fall during the reign of Bhagabhadra, particularly towards the latter part. It is worthwhile to note that in the opening

³ *Meghaduta*, stanza 1.

scene of *Malavikagnimitra*, Kalidas is described as a poet and there must be some poem or poems to his credit before he started the composition of *Malavikagnimitra*.

Raghuvamsha also furnishes internal evidence of considerable importance but before I come to it I must exhaust my suggestions regarding the birth-place and residence of Kalidas based principally on a reading of *Meghaduta* and *Malavikagnimitra*. I regard *Devgiri* as the place of the birth of Kalidas. This place is in the Doab between the river Gambhira and Chambla. It is difficult for an outsider to give prominence to an unimportant place like this Devgiri. I read in the expression नियतवस्तिम् in “तत्रस्कन्दं नियतवस्ति पुण्यमेशी-कृतात्मा”⁴ an allusion to his own place of permanent residence. There cannot be a shadow of doubt that Kalidas was a resident of Malwa. Out of the three geographical tracts, (1) the portion of Central Provinces, (2) Malwa, (3) the portion of Northern India stretching from Brahmavarta to Alaka, Kalidas has most intimate knowledge of Malwa. He has described five rivers—Vetravati, Nirvindhya, Sipra, Gambhira and Charmanvati ; two hills Neechais and Deogiri and three cities—Vidisha, Ujjain and Dashapur and by doing it, he has described all that could be described in Malwa. *Vidiṣa* was the eastern terminus *a quo*, whereas Dashapur was the western one and Devgiri happens to be the centre. The predilection for Devgiri accounts for the composition of कुमारसंभव (*Kumar-sambhav*). Ujjain was the seat of learning and like the Ikshvakus who spent their boyhoods in acquiring knowledge “शशबद्भ्यस्त विद्यानाम्” Kalidas must have spent his boyhood at Ujjain. He goes to the Court of Vidisha to try his luck. The preceptor Ganadas is an outsider but he gains the confidence of Queen Dharini, in *Malavikagnimitra*. Ultimately he had to leave the court and spend a year in exile : Ramgiri was evidently the place. He goes back to his country—not to Vidisha but to Ujjain and became ultimately a poet laureate of the court of Vikramaditya (Shakari). The Bharatavakyam of *Vikramorvashiyam* marks his self-complacency.

परस्परविरोधिन्योरेकसंब्युङ्गम् ।
संगतं भीसरस्त्वार्भूतयेऽस्तु सदा सताम् ॥

“ May there be always for the prosperity of the good, the union between wealth and learning who are opposed to each other, which is difficult to be found in one place.”

Fed up with the earthly enjoyment, Kalidas goes to the Himalayas and prays for his deliverance from the chain of Birth and Death. The last ideal

⁴ *Meghaduta*, stanza 45.

of the Ikshvakus “ योगेनान्ते ततुत्प्रजाम् ” he seems to have realised in his own life. He died childless and he has expressed his yearning for a child in inimitable language in the last act of *Shakuntala* :

“ धन्यास्तदङ्गरजसा मलिनीभवन्ति ”

Abhijnan-Shakuntalam, Act VII.

“ They are fortunate indeed, whose bodies get soiled with the dust of the limbs of their children.”

The striking note in the description of Dashapur in the *Meghaduta* is freedom from licentiousness and it seems that there is some object underlying this restraint. Possibly Kalidas may have been married at Dashapur and this suggestion completes the picture of the life of Kalidas.

I must pause here for a while. Dashapur alias Dasor has been identified with the modern Mandasor in Scindia's territories. According to Dr. Fleet, it must have been formed from the juxtaposition of ten hamlets. The ancient name Dashapur has also been mentioned in an early Nasik inscription of Ushavadata.⁵ An inscription has been discovered at Dashapur referring itself to the reign of Kumargupta, one of the early Gupta emperors. According to this inscription, a number of silk-weavers migrated from the Lata country (Central and Southern Gujerath) to the city of Dashapura. It mentions one Bandhuvarman, a governor under Kumargupta, was ruling over the city. Further it states that the guild of those silk-weavers erected a temple of the Sun which was completed in the year 437-38 A.D. Afterwards under other rulers, a part of this temple fell into disrepair but it was restored by the same guild in the year 473-74 A.D.

The final verses as translated are :—

“ The whole of this noble city was decorated with the best of the temples. Just as the pure sky is decorated with the moon and the breast of the God Vishnu with the *Kaustubha* jewel. As long as the Isha wears a mass of tawny matted locks, undulating with the spotless rays of the moon ; as long as the God Vishnu carried a garland of lovely water-lilies on His shoulder—so long may this noble temple endure for ever.”

About the dates of the building and the repairing of the temple, there is not the least doubt as the years are mentioned in the inscription, reckoning the period from the tribal constitution of the Malawas.

Now let us keep before ourselves the chronology of the Gupta period :

⁵ *Arch. Surv. West India*, Vol. IV, p. 99.

- 320 A.D. Chandragupta I. His accession to independent power.
- 330 A.D. Accession of Samudragupta.
- 380 A.D. Accession of Chandragupta II.
- 415 A.D. Accession of Kumargupta I.
- 455 A.D. Accession of Skandagupta.
- Between 467 and 470 A.D. Accession of Narasimhagupta.
- 473 A.D. Accession of Kumargupta II.
- 480-90 A.D. Partial break-up of the Gupta Empire.
- 500 A.D. Tormana in Malwa.
- 502-42 A.D. Mihiragula.
- 528 A.D. Defeat of Mihiragula by Vikramaditya Yashodharmadeo.

It will appear that Vikramaditya Yashodharmadeo who defeated Mihiragula and drove out the Hunas from India flourished in the first half of the sixth century. He erected columns at Mandasor, commemorating his victory.⁶ The date on a stone-tablet at Mandasor is 589 of the Malawa era corresponding to 533-34 A.D. If Kalidas was a contemporary of this Vikramaditya (Yashodharmadeo), he could not have been a contemporary of Chandragupta II and Kumargupta I, the former of whom was dead 113 years before 528 A.D. The Mandasor inscription which records the erection of the temple of the Sun which must have been one of the wonders of the world according to the description, shows that the temple was completed in the Malawa year 493 corresponding to 437-38 A.D. With such a temple existing at Dashapur it does not stand to reason that Kalidas would not mention it when he could not avoid the temptation of mentioning the Skanda temple at Deogiri. Kalidas cannot, therefore, be placed later than 437-38 A.D. and this means that he could not be a contemporary of this second Vikramaditya of Malwa. If tradition cannot be discarded absolutely Kalidas must be held to be a contemporary of the Vikramaditya with whom the era of 57 B.C. has been associated.

Vincent Smith says⁷ : "In my judgment it is now established that Kalidas lived and wrote in the fifth century, his literary activity extending over a long period, probably not less than 30 years. Although it is difficult to fix the dates of the great poet's career with precision, it appears to be probable that he began to write either late in the reign of Chandragupta II or early in the reign of Kumargupta I. The traditional association of his name with Raja Vikram of Ujjain is thus justified by sober criticism."

⁶ Fleet, *Gupta Inscription*, Nos. 33, 34 and 35.

⁷ *Early History of India*, p. 321.

Even Mr. Vincent Smith is not prepared to give the go-bye to tradition and thinks perhaps Chandragupta II who assumed the title of Vikramaditya was the patron of Kalidas. But Chandragupta II was not the Raja of Ujjain. He was the emperor of a major part of India, having his capital at Pataliputra. Ayodhya was the second capital of the empire during at least the reigns of Samudragupta and his son Chandragupta II.⁸ Mr. Vincent Smith winds up the discussion on this point and says that during the fifth century Ayodhya rather than Pataliputra was the premier city of the Gupta empire. So if Chandragupta II was not the Raja of Ujjain, apart from his being the over-lord of Ujjain and the whole of Northern India it is futile to say that the traditional association has been justified by sober criticism.

Apart from this, is there anything which Kalidas has taken for representation in his works from the Gupta period? Samudragupta was one of the greatest emperors of all history. No reference to him or to any of his successors has been construed from any passage in his works, apart from the deductions drawn from the use of the word *Vikram*. The conjecture that the description of Raghu's conquest was suggested by Samudragupta's conquests, is a mere phantasy. I shall, however, deal with it when I discuss the references in *Raghuvamsha* in another article. There is no tradition that Kalidas ever lived at Pataliputra or Ayodhya. Tradition says that he was a poet laureate attached to a Royal Court which existed at Ujjain and nowhere else. How can then Kalidas be connected with the Gupta times? On the theory presented in these pages, there is at least the life of Agnimitra, a Cunga king painted by Kalidas and the analogy of the end of the Cunga line pictured in another of his works, the *Raghuvamsha*. The assertion that it is now established that Kalidas lived and wrote in the fifth century A.D. is, with due respect, only an assumption. I need not pursue the matter further.

Another land-mark furnished by *Meghaduta* is the counting of the month from *Shukla Pratipada*. In the second stanza, we have :

आषाढस्य प्रथमदिवसे मेघमा शिष्टसानुम् ।

वप्रकीड़ापरिणतगजप्रेक्षणीयं ददर्श ॥

Meghaduta, stanza 2.

The journey of the megha begins on the first day of Ashadha. If the month began in those days with Vadya Pratipada, the journey started 25 days before Ashadha Shukla 11. If on the other hand, if the month commenced on Shukla Pratipada, the journey started ten days before the Ashadha Shukla 11.

⁸ *Vide* V. Smith, *E.H.I.*, p. 310.

In the latter part of *Meghaduta*, it is stated that the year's exile will end on the Kartika Shukla 11.

शायान्तो भे भुजगशयनादुत्थिते शार्ङ्गपाणौ ।
केषवान्मासान् गमय चतुरो लोचने मीलयित्वा ॥

Meghaduta, stanza 115.

This shows that four months had yet to elapse after the delivery of the message to the wife of Yaksha. If the reading of *Meghaduta* justifies us in concluding that the megha must have reached Alaka on Ashadha Shukla 10 or 11, the calculation of four months is absolutely correct.

It appears that the journey from Ramtek to Alaka must have taken not more than ten days : I would arrange the time-table in the following manner :—

Ashadha Sudha 1 .. Ramtek to Rewa.

N.B.—The megha is required to fill himself with water drawn from Rewa (stanza 20).

Ashadha Sudha 2 .. Rewa to Vidiça.

N.B.—(1) The megha is asked to fill himself with water from Vetravati (stanza 24).

(2) The megha is asked to halt on the Neechei hill (stanza 25).

(3) He is asked to move among the gardens.

Ashadha Sudha 3 .. Vidiça to Ujjain.

N.B.—(1) The megha is asked to stop on the way to fill himself with water from Nirvindhya (stanza 27).

(2) The megha is asked to spend the night in mansions to ward off fatigue (stanza 32).

Ashadha Sudha 4 .. Halt at Ujjain.

N.B.—(1) The megha is asked to visit Mahakal and stop till the evening worship (stanza 34).

(2) Halt at night on some terrace (stanza 38).

Ashadha Suddha 5 .. From Ujjain in the morning to Charmanwati.

N.B.—(1) The megha is asked to halt for some time on the Gambhira river (stanza 40).

(2) The megha is asked to worship Skanda at Devagiri (stanza 42).

(3) The megha is asked to fill himself with water from Charmanwati (stanza 46).

Ashadha Suddha 6 .. From Charmanwati to Dashapur (stanza 47).

Ashadha Suddha 7 .. From Dashapur to Kurukshetra (stanza 48).

N.B.—The megha is asked to fill himself with water from Saraswati (stanza 49).

Ashadha Suddha 8 .. From Kurukshetra to Kanakhal (near Hardwar) (stanza 50).

N.B.—The megha is asked to fill himself with water from the Ganges (stanza 51).

Ashadha Suddha 9 .. *From Kanakhal to the summit of the Himalayas.*

N.B.—The megha is asked to take rest on the summit (stanza 52).

Ashadha Suddha 10 .. From the summit of the Himalayas to Kailas.

N.B.—(1) The megha is asked to proceed through a pass called the heron's hole (stanza 57).

(2) He is asked to be a guest of Kailas (stanza 58).

(3) He is asked to enjoy the stay at Kailas (stanza 62).

Ashadha Suddha 11 .. Kailas to Alaka (stanza 63) which is on the lap of Kailas.

These stages of the journey are so distinct that it is not reasonably possible to spread them over 25 days. Moreover, it is idle to think of spending 25 days in transit when the Yaksha felt a great anxiety to convey his message as early as possible. He had chalked out the plan geographically and chronologically so that the megha reaches Alaka just four months before the end of his exile.

The net result of the above discussion is that the month commenced on Shukla Pratipada or what is the same thing, the month was अमावस्या and not

पूर्णिमान्त. The Purnimant month (the month ending on Purnima) obviously commenced after 57 B.C. when what is known as the Vikram era commenced. In Mahabharat times (*i.e.*, about 1500 B.C.) the month ended on Amavasya day. See विराटपर्ब, Chapter 52.

एषामभ्यथिका मासा पञ्च च द्वादशक्षपाः ।
त्रयोदशानां वर्षणामिति भे वर्ततेमितिः ॥

The calculation could only be correct if the month was regarded as अमान्त. There is no serious reason to suppose that prior to 57 B.C., another calculation was in vogue. The founder of the new era in 57 B.C. obviously made the departure and the burden lies on one who maintains the opposite, *viz.*, to establish that at any time prior to 57 B.C. and after the Mahabharat war, the calculation in vogue among the Hindus was on the footing of पूर्णिमान्त month. It has been brought to my notice that in Vedic times the month was पूर्णिमान्त. The question is—if it is so,—was this arrangement retained during the great period that intervened? Perhaps the founder of the new era may have liked to revive the Vedic arrangement. We have, therefore, to conclude that when *Meghaduta* was composed, the new era had not been founded and that, therefore, Kalidas lived before 57 B.C.

Kalidas undoubtedly lived in Malwa and the *era* that was founded in 57 B.C. was at first known as कृत. It was after a considerable number of years that its name was changed to विक्रमसंवत्. One thing that is noteworthy in this connection is that the era seems to have been reckoned from the tribal constitution of Malawas. The Mandasor stone inscription of Kumargupta states :—

“ मालवानाम् गणस्थित्यायाते शतचतुष्ट्ये त्रिनवत्याधिके ”

Pt. Gauri Shankar Ojha (R.B.) is inclined to think that Vikram era was known as Malawa era before 841 A.D. Kalidas with pride for Malawa could not have ignored the change. Ashadha Shukla 1 could be the sixteenth day of Ashadha according to the scheme of this new era and not the first day (प्रथम दिवस). In some of the inscriptions of later times, the scheme is very prominently brought out. In the Khoh copper-plate grant of the year A.D. 528-29, there is a double description showing चैत्रसास-शुक्रपक्ष-त्रयोदश्याम् and further down, in numerical symbols chaitra di, 20, 7. (Chaitra Di stands for Chaitra Dive or Divase and 20 and 7 stand for the 27th solar day of the month. If the month was Purnimant, Shukla Trayodashi would be the 27th day of the month.) Dr. Fleet is of opinion that in the arrangements of the fortnights of the months of the *Gupta year*, it is the Purnimanta northern system that is concerned. The Khoh grant is of the Gupta year 209. In

another grant of the Gupta period, known as the Majhgawam grant, the same kind of record is seen. Dr. Fleet is emphatic⁹ that the original Gupta year was a northern year with the Purnimant northern arrangement of the lunar fortnights, as was, in fact to be expected in the case of a year used by so essentially a Northern India Dynasty as the early Guptas were. If Kalidas lived in the Gupta period and particularly in the times of the early Guptas, he would never depart from the Purnimanta scheme of the year which was followed by the Guptas and if our reading justifies us in holding that the Megha journey commenced on Ashadha Shukla 1 and that it was the first day of the month of Ashadha, Kalidas must be placed before the Gupta period and a fortiori, before 57 B.C. the year of the Krita or Malawa era which was responsible for the Purnimanta scheme. Under any circumstances, the mention of Ashadha Shukla 1 as the first day of Ashadha is a departure from the scheme of the Gupta period and Kalidas has no place in the times of the Guptas. A Jain author (Dr. Tribhuvandas Shah) maintains that the Krita or Malawa era introduced an *Amanth* month. It is difficult to see how this arrangement was changed to पूर्णिमान्त when the era was christened as Vikrama Samvat later on. But even on this writer's theory it is impossible to place Kalidas in the Gupta period because Gupta era unquestionably introduced Purnimant month and a poet laureate would be the last person to flout the new arrangement which must have been in vogue for 160 years before his time. The theory would only induce us to place the composition of *Meghaduta* some time after 57 B.C.¹⁰

Reference has already been made to Ujjain which had no reigning monarch there during the time of the Cungas. It appears that between 558 B.C. and 459 B.C., there were some powerful kings at Ujjain, the most famous of whom was Pradyote and who was a contemporary of Gautama Buddha. The famous Vasavadatta was the daughter of Pradyote and had been taken away by Udayan, the king of Vatsas, to whom she was ultimately married. Udayana is very famous in Sanskrit literature and is the central figure in a large cycle of stories of love and adventure. In the first half of the first century B.C., the people of Ujjain had not forgotten the exploits of Udayan and Kalidas alludes to this when he says in the *Meghaduta* :

प्राप्यावन्तीनुदयनकथाकेऽविदप्रामहृदान् ।
पूर्वोद्दिष्टमनुसरं पुरी श्रीविशालां विशालाम् ॥

Meghaduta, stanza 30.

⁹ See *Corpus Inscriptionum Indicarum*, 1888, Vol. III, p. 78.

¹⁰ Vide *Ancient India*, Vol. III, p. 374.

As it stands, the intervening period of 400 years is sufficiently long for the people to forget the exploits of Udayana and if to these another 400 years are added, it does not seem possible that the village-elders would recite stories of Udayana. The *Puranas* mention five kings of the Pradyote family and Avantivardhana seems to be the last king. The dynasty came to an end and Ujjain was absorbed in the Maurya empire. Asoka the Great lived at Ujjain for some time during his father's rule and held his viceregal court there. With the disruption of the Maurya empire, Ujjain came to be tacked on to Vidiça, so between fifth century B.C. and the first century B.C. Ujjain had no rulers of her own after the end of the Pradyote dynasty and no wonder, the people of Ujjain had to depend on the exploits of the son-in-law of Pradyote for whiling away their time.

It is worthwhile to spend some time on the lines in the *Meghaduta* :

स्थानादस्यात् सरसनिचुलादृप्ततोद्भूमुखः खम् ।

दिङ्गागानां पथि परिहरन् स्थूलहस्तावलेपान् ॥

Meghaduta, stanza 14.

Mallinath, the celebrated commentator of Kalidas, sees in these lines a reference to two contemporary poets of Kalidas—Nichula and Ding-Naga, the former a friend and the latter, a hostile critic. It has been asserted by scholars that Ding-Naga could not have lived in the first century B.C. Moreover, he is not famous as a poet also. But Ramtek is associated till this day, with the name of Nagarjuna, the great Buddhist scholar and poet. He was famous as the founder of the Madhyamika school of Philosophy. The Tibetan accounts credit him with a residence in Berar (Vidarbha). A cave exists even now on the Ramtek hills in the name of Nagarjuna, and Ramtek was a part of Vidarbha in the time of Kalidas. In *Malavikagnimitra*, mention is made of the division of Vidarbha into two halves, the river Wardha (वरदा) being fixed as the common boundary.

राजा—मौद्र्य, तत्रभवतो आतोर्यक्षसेनमाध्वसेनयोः

द्वैराज्यमिदानीमवस्थापयितुकमोऽस्मि ।

तौ पृथक्वरदाकूले शिष्ठामुत्तरदक्षिणे नकं दिवं

विभज्योभी शीतोष्णकिरणाविष ॥

Malavikagnimitra, Act V.

“ King-Maudgalya, I now desire to establish two separate kingdoms for the two worthy brothers Yajnyasena and Madhavasena. Let them divide between themselves and separately rule over the tract on the northern and southern banks of the *Varada* river just as the moon and the sun divide the night and the day between them and hold sway over them.”

Roughly speaking the two subdivisions would be described as भोजकर्त and वेणाकर्त mentioned in the *Sabhaparva* of the *Mahabharat*.

Nagarjuna, it is said, lived in the first century or second century B.C., though the scholars are not agreed on the point and if the reference to Ding-Nag has any allusion to a poet who has the word *Naga* in his name, he could be Nagarjuna whose existence in the first century B.C. is probable. But on a plain reading of the two lines, I incline to the view that no reference to any Dinnaga or Nagarjuna is implied therein. The megha is asked to take a message from a prisoner and the poetic imagination will conjure up obstructions to the carrying on of correspondence. The elephants of the directions will be requisitioned to use their trunks whose obstruction can be removed by blows from sticks. The Nichulas are canes and in order that they must be effective, the adjective सरस (green and solid) has been used. The idea seems to be that in case there is any obstruction, you know the green and solid canes are close by and a judicious use of the same will serve your purpose. All this has to take place while the megha rises from the hill high into the sky with face turned to the north.

It may not be out of place here to say a word though it may look like a digression, about the identity of Ramtek and Ramgiri. Mallinath and other commentators of *Meghaduta* regard Chitrakuta as Ramgiri. This is impossible since by going northwards from Chitrakuta, one cannot cross the *Narmada*. Ramtek, obviously, is a place to the south of *Narmada*, and must be at a distance of one day's journey from the *Narmada*. But the next question is—where was *Narmada* crossed? Was it at Jubbulpore or at Hoshangabad or at a place midway between the two? I incline to the view that the *Narmada* was crossed at Hoshangabad which was known formerly as Narmadapur. At one time I was inclined to the view that the *Narmada* was crossed at Jubbulpore. My reasons were influenced by the description of the *Narmada*:

“रेवांद्रश्युपलविषमे विन्ध्यपादे विशीर्णाम्”

Meghaduta, stanza 19.

I regarded and do regard that उपलविषमे is a wrong reading; it should be उपलविषमाम्. The foot of a mountain is always expected to be uneven on account of stones. On the contrary it is something unusual if a river is uneven on account of rocks. In one of the dramas of Bhasa, I have come across an expression उपलविषमा (*cf.* उरभास). Be that as it may, the river appeared to be lying at the foot of the Vindhya range. This scene is witnessable particularly at Hoshangabad. Jubbulpore, however, is essentially

a city of rocks (उपल) and who can say that उपल did not become युप्ल and finally जुप्ल ? But the real difficulty faces us in the onward march of the megha. Beyond Narmada or between Narmada and Vidiça, there is a series of mountains and burnt forests. This we can get only if the Narmada was crossed at Hoshangabad. Beyond Jubbulpore there is no possibility of meeting mountains after mountains and burnt forests, on the way to Saugor and Bhilsa. It may be interesting to note that the Hoshangabad tract must have been a part of the Vidiça country for in the thirteenth century A.D. it was a part of the Dhara kingdom. The inscription on the Bhopal plates of Vikram Samvat 1256 recalls the grant of a village Ganawra which is near Hoshangabad to a Brahman Makesarman. The village is said to be in the Vindhya Mandal, District Narmadapur. The donor is said to have bathed in *Rewa* at the place called Guwadighat. We have even now a village Guwara or Guwarighat, two miles to the west of Hoshangabad. This grant was made during the rule of a Parmar King of Dhar in Malwa.¹¹ Between Ramtek and Hoshangabad the scenes described are consistent with the present situation as it obtains between the two places.

Before I close references to *Meghaduta*, I cannot resist the temptation of making a suggestion for which there are frankly no historical data. In Shloka 6 we have the lines :

जातं वशे भुक्तनविदिते पुष्कलावर्तकानाम् ।
जानामि त्वां प्रकृतिपुरुषं कामरूपं मधोनः ॥

Meghaduta, stanza 6.

The megha who was charged with the message represents some one who belongs to the country of पुष्कलावति the seat of the Shakas who held sway at Takshaçila. If Kalidas had to leave Vidiça during the reign of the last Çunga king Devahuti, he may have arranged to induce some one connected with the Greek Embassy to keep a kindly eye over his household. This is not an unnatural position particularly in those times when honour and purity could with difficulty be maintained. पुष्कल and आवर्तक are known as clouds which produce drought and famine. The cloud of Kalidas was of a different type, namely, one that gave rain for fertilising the earth. The reference to प्रकृतिपुरुष is appropriate in the case of an Ambassador attached to an Embassy and on account of his high patronage, the Ambassador would have free movements in the country. The reference to कामरूप could thus be quite proper ; otherwise, it is difficult to accept the view that cloud is a minister of the king of gods (प्रकृतिपुरुष). The message might

¹¹ Vide *Indian Antiquary*, Vol. XVI, p. 252—Article by Dr. Fleet.

have been intended to be delivered to his wife through some one associated with the Embassy. Of course, the mention of Alaka and its description would be ascribed to poetic fancy. But as I have stated above, this is a pure suggestion and has nothing to do with the conclusions which I have drawn from historical and other data. I may sound another note of caution that wherever I have made suggestions, these are independent of the conclusions drawn by me.

Summary of Conclusions

1. Vidiça was an Imperial city only in the Çunga period between second century B.C. and fifth century A.D.
2. Agnimitra was, in effect, the first king of Çunga dynasty and his reign being short-lived, and nothing of importance having occurred after the death of Pushyamitra, his father, Vidiça did not attain the position of an Imperial city in his time.
3. The only king of Çunga dynasty who had a long reign and in whose reign, there is a historical record of a foreign embassy having been maintained, is Bhagwat or Bhagabhadra. There are historical data that three or four countries owed allegiance to the Çungas about the time of his reign.
4. Kalidas lived and flourished at a time when Vidiça was an Imperial city and so he must be placed during the reign of Bhagwat, particularly, its latter part.
5. The description of social life at Vidiça and Ujjain is consistent with what it must have been during the reign of the last over-libidinous king Devabhuti.
6. The choice of incidents in the life of Agnimitra as portrayed in *Malavikagnimitra* is only consistent with Kalidas being a protégé of the kings of Çunga dynasty.
7. The abrupt ending of *Raghuvamsha* with the narration of the life of Agnivarna, which was similar to that of Devabhuti, is a strong indication that Kalidas was a contemporary of the Çunga kings.
8. Vidiça ceased to be a capital and an Imperial city after the death of Devabhuti and it never regained its position before the downfall of Gupta empire.
9. Kalidas could not possibly have referred to Vidiça as an Imperial city if he had lived in the Gupta times. It is natural to expect Kalidas for that matter any writer, to describe contemporary events or geographical, historical or political situation existing in his time, in a poem like the *Meghaduta*. It is unquestionable that he described status of Vidiça as it existed in his time.

10. Kalidas refers to an *Amant* month in *Meghaduta* and not to a Purnimant month. If he had lived in the times of the Guptas who had an era of their own, the month would have been Purnimant according to their arrangement. The Gupta era follows the traditions of the North Indian arrangement in this respect and as this arrangement could not be inconsistent with that of the era of 57 B.C., Kalidas must be placed before 57 B.C. The composition of *Meghaduta* did take place before 57 B.C.

11. Tradition associates Kalidas with King Vikramaditya of Ujjain. The era of 57 B.C. is believed to be founded by Vikramaditya who is further described as *Shakari*. No Gupta emperor was a king of Ujjain as such. His overlordship is inconsistent with the theory of the holding of a permanent court at Ujjain. Pataliputra and Ayodhya were the Imperial cities in the times of the Guptas.

12. This tradition is reinforced by the naming of the era of 57 B.C. as *Vikram Samvat* in the ninth century A.D. If the existence of Vikramaditya was accepted as a historical fact, in ninth century A.D., there is no reason why we, eleven centuries thereafter, should hesitate to accept it.

13. Apart from the Gupta emperors who had assumed the rôle of Vikramaditya there was one Vikramaditya who was a king of Ujjain and who is famous as *Hunari*. But he lived in the sixth century A.D. He had defeated Mihiragula in 528 A.D. and if Kalidas was his contemporary, he could not have been a contemporary of Chandragupta II who was dead 113 years before 528 A.D.

14. No connection with the Gupta dynasty has been discovered in any of the accredited works of Kalidas, on the contrary, a reference to the wretched social life at Vidiça and Ujjain will be inconsistent with the glorious rule of Chandragupta II or Kumargupta I.

15. Kalidas cannot be a contemporary of Vikramaditya *Hunari*, for, among other things, he could not have omitted a reference to the great Sun temple at Dashapur (Mandasor) which had been completed in 437-38 A.D.

P.S.—After the above was in print, I happened to read the volume styled as “*The Monuments of Sanchi*” edited by Sir John Marshall and Alfred Faucher and recently published under the patronage of His Highness the Nawab of Bhopal. I find the following passages on pages 5 and 7 of the first volume, which considerably support my theory :

“ Unfortunately during the long rule of Andhras, the history of Malwa is enveloped in obscurity and it is not until the reign of famous Goutamiputra Shri Shatakarni, in the second century, A.D., that even the scanty

light afforded by inscriptions and coins again begins to break. We hear, however, of two interruptions in their rule : the first between 61 B.C., and 57 B.C., when according to the Jain Kalakacharya Kathanaka Ujjaini was in the hands of Shakas for four years ; the second towards the end of first century A.D., when both Western and Eastern Malwa passed for a few decades into the possession of the Kshaharatas to be reconquered about 125 A.D. by Gautamiputra Shri Shatakarni and finally lost about 150 A.D. to the great Satrap Rudradaman. From that time onward, the two provinces seem to have remained in the hands of the Western Kshatrapas until the close of the fourth century, when along with Gujerath and the peninsula of Surashtra, they were annexed to Gupta Empire. This annexation was accomplished by Chandra Gupta, the second, an echo of whose conquest occurs in an inscription carved on the balustrade of the great stupa dated in the year 93 of the Gupta era (A.D. 412-13) "—(page 5).

" From the 13th century onward Sanchi appears to have been left deserted and desolate. The City of Vidisha had fallen to ruins during the Gupta period and had been superseded by Bhilsa (Bhailasavamin)"—(page 7).

“QUTB UL HIND”

HAZRAT KHWĀJAH MU'INUDDĪN CHISHTĪ,
PERSIA'S FAMOUS SŪFĪ SAINT, AT AJMĒR

BY SHAMS UL 'ULAMA M. A. GHANI, M.A., M.LITT. (CANTAB.)

His Arrival in India in 561 A.H.

“QUTB UL HIND”, SHAIKH UL AULIYA, HAZRAT KHWĀJAH MU'INUDDIN CHISHTĪ SANJARĪ ISFAHĀNĪ arrived in India from Persia in 561 A.H. He stayed permanently at Ajmēr, the seat of government of Rāi Pithorā, and here founded a school for the teaching of Sūfism which spread its influence not only on the soil of Rājpūtāna, but also on the minds of the people far beyond its boundaries, irrespective of caste and creed. Many spiritual men and Sūfis had come to India before, and it is possible that during the time of the *Khulafā i Rashidin* even the associates of the Holy Prophet might have visited the country, but their names and deeds are not preserved in history. As far as we know, the Khwājah was the first Sūfi saint who came and lit the candle of Sūfism in upper Hindūstān by laying the foundation of a regular school for the teaching of the Sūfi cult.¹ The ancestors of the Khwājah lived

¹ It is to be noted that Abul Hasan bin 'Usmān bin 'Alī al-Hujvīrī, a learned theologian and Sūfi, the famous author of the *Kashf ul Mahjūb*, who was a resident of Ghaznī, had come down to Lahore in 433 A.H. Here, he spent the rest of his life in teaching the Holy *Qur'ān* and the Traditions of the Holy Prophet. He died in 455 A.H., and was buried at Lahore. He had, doubtless, created a taste for Sūfism and a desire for the purification of *self* among the peoples of the Punjāb, but his teaching was not so universal and organised as that of the Khwājah. It could not, therefore, claim to have laid the foundation of any permanent spiritual structure in India, and consequently no traces of his school and his teachings are to be found anywhere to-day. On the other hand, the Khwājah is a living force, and his disciples are to be met with in every town of upper Hindūstān, carrying his message to every seeker of divine light. Abul Hasan's *Kashf ul Mahjūb*, which he wrote at Lahore, is a collection of answers to particular questions put from time to time by a fellow Sūfi and friend Abu Sa'id al Hujvīrī. The nature and trend of the aforesaid questions were “Who is a Sūfi”? “Who is a learned man”? “What is the good of their existence in the world”? Abul Hasan, in answer to all these questions, explained the term *Sūfi* in its broadest sense, and defined *learning* and the *learned* as interpreted in the *Holy Qur'ān*:

in Sistān, but he was born at Isfahān² in 537 A.H.,³ and was brought up in Khurāsān, where he received his primary education and became a regular disciple of Shaikh 'Usmān Hārūnī of Chisht.⁴ He served his master for eight years,⁵ and during this time gained a considerable insight into Sūfism and was appointed his *Khalifah* (Deputy) in his very life-time.⁶ The saint died in 554 A.H., when the Khwājah was seventeen years old. The Khwāja's father, Ghiyāsuddin, had his ancestral property at Sistñ, but had left the place two years after the birth of the child owing to the periodical attacks on Sistān by the barbarous and troublesome Tārtars known as the *Ghaz*. He went to Khurāsān, and took up his residence in the suburbs of Nishapūr, where his death occurred in 551 A.H. The Khwājah was then only fourteen years old. He had two other brothers on whom the inheritance devolved. The share he received consisted of a small garden and a stone-mill. In 549 A.H., when he was hardly twelve, he had seen with his own eyes the devastations of the Ghaz Tārtars, the massacre and plunder of Nishapūr, the burning of its libraries, the slaughter of hundreds of scholars

² Cf.

مولو شریعت دی بدھ، اصفہان، است

(*Khazinat ul Asfiyā*, p. 241.)

³ Cf.

وورت بسادت آنچاہ در سال پانصد و سی هفت بدرع

(*Ibid.*)

⁴ Chisht is a small village in Khurāsān to which Khwājah Abū Ishāq, a teacher of Shaikh 'Usmān Hārūnī, had migrated from Syria. Here, he used to impart instructions to his disciples who became subsequently known as *Chishtiis*. The Khwājah also for this reason was called *Chishti*.

⁵ Cf.

خواجہ بنزگ میں اللہ والدین حسن الحسینی سنجی ... ہشت سال در خدمت خواجہ عثمان
کارونی قدس اللہ سرہ بود -

(*Akhbār ul Akhyār*, p. 22.) N. K. Press, Delhi.

Note.—A later printed edition gives the reading بست سال (twenty years) which is a misprint for بہت سال (*Ibid.*, Mujtāba'i Press, Delhi).

⁶ Cf.

در سفر و حضر جامی خواب فرا جنکاہ دشته ائمہ بہت خلافت مشرف گردید -

(*Ibid.*)

of repute,⁷ the defeat and arrest of Sultān Sanjar and the insults and humiliation to which the dignitaries were subjected. Consequently, his heart had become cold towards worldly splendour and wealth. After his father's death, he remained for about four years in the village of Nishapūr where his ancestral garden, which was the only means of subsistence, was situated. At the close of the fourth year, a *majzūb* saint, Ibrahim Qalandar, who resided in that vicinity, chanced to pass that way. When he approached, the Khwājah accorded him a hearty welcome, spread out a carpet for him, knelt and kissed his hands and presented him with a bunch of grapes fresh from the garden. Pleased with this demeanour and hospitality of his young host, the saint took out a piece of *کنگارہ* (oil-cake) from his wallet, bit it with his teeth and, then put it into the mouth of the Khwājah. As soon as he ate this, he felt a radical change in his condition, and his heart became completely averse to material concerns.⁸ Soon after the saint's departure, the Khwājah sold his garden and the mill with all other appurtenances, divided the proceeds among the poor and left the place with some of his faithful followers in search of Divine light. He arrived first in Bukhāra, which was a noted centre for religious and ethical teachings in Central Asia. Here, he learnt the *Qur'an* by heart, and read its commentary with the learned divines of the town. He then travelled through Samarqand and other cities of Turkistān, and subsequently returned to his native place, Isfahān, where he met with Khwājah Qutbuddin Bakhtyār Kāki, a young ardent Sūfi, who became his disciple and accompanied him to India.

⁷ A few notable persons who were put to death were :

- (i) Muhammad bin Yahyā Faqīh, a learned theologian of the Shāfi'i school of thought, who is said to have had no equal in his day in the entire Muslim world.
- (ii) 'Arif 'Abdurrahmān bin Abdussamad Akāf, whose piety and learning were a by-word in Khurāsān, which had attracted thousands of alumni to Nishapūr. Even Sultān Sanjar used to attend in person on the 'Arif to profit by his company and to gain his blessings.
- (iii) The Nephew of Imām Qushairī, Ahmad bin Husain al-Kātib, the philosopher.
- (iv) Imām 'Ali Sabbāgh, the well-known writer and logician of the age.
- (v) Qāzi Sā'id 'Undulūsi, the historian and *Adib*.

⁸ Cf.

روزے ابراہیم قلندر نام را در آنجا گزیر، افتاب قدر کنگارہ از بغل آورده در مکان خود نیاد و بینداز خانمیده
برآورده و بست خود در دل ان خواجه نیاد سمجھ و خود خون کنگاره ازوار الی در دل خواجه جوہہ شند و
خاطر فیض ناشراز اسباب زیارت سرد شد۔

*The Occurrence of a Strange Event :
Conversion of Ziyā'uddin Hakim, the Famous Logician
and Disbeliever of the Sufi Cult*

From Isfahán he repaired with his followers to Balkh, where a strange event, which was attributed to his supernatural powers, occurred. It was the conversion to faith of the famous logician Ziyā'uddin Hakim, who had been a strong opponent of the Sūfis and derided their cult in his public lectures. Some details of this incident are as follows. In 555 A.H., when the Khwājah reached Balkh, he stayed in a village, and one evening shot a *kulang* (wild crane) with his arrow to break his fast. He always carried with him a salt-bottle, a flint-stone and a bow with arrows to serve him in the hour of need. He would shoot some *halāl* bird or quadruped in the jungle when nothing could be had for his own and his followers' breakfast. This, from the purely religious point of view, was to be the best earned food. It so happened that one day Ziyā'uddin, who with his pupils had gone out for a stroll, passed that way, and seeing a stranger offering his evening prayers with devotional zeal and reciting the Holy *Qur'an* in a sweet beautiful voice, stopped to hear him. When the prayer was finished, Ziyā'uddin embraced the Khwājah and entered into conversation with him. In the meantime, one of the attendants of the Khwājah put before him the roast *kulang* with the salt-bottle. The Khwājah offered a portion to his guest who thankfully accepted and ate it with him. No sooner did he do it, he fell into a swoon, and when he regained his consciousness he found himself to be a totally different man, and his former disbelief in Sūfism was completely shattered and turned into a firm belief,⁹ with the result that he and all his followers accepted the Khwājah as their spiritual guide and became afterwards devout adherents of his cult.¹⁰ This incident created a sensation in Balkh, and multitudes thronged to have his *darshan*. From there he set out to India via Ghazni, and reached Lahore

⁹ Cf.

وَضَّا وَالرِّينْ حَكِيمْ كَنْهَايَتْ مُزَدَّدْ وَسَكَرْ تَصْوِيفْ دُورْ نَزَارَاتْمَا اَذْرَانْطَرْ لَكْرَارْدْ وَازْجَرْشَ خَرْانِي
وَقَرَأَتْ خَواجَهْ بَرِيشَتْ تَنَافَرْ شَهَدْ بَنْخَسْتْ تَنَالَكَهْ بَلَغْرَارْ دَرِيَفَتْنَدْ ... مَهَايَهْ هَنَانِكَهْ بَلَكَرَهْ رَاهْ بَسْشَ نَهَادْ
خَواجَهْ يَارَاهْ دَنَانِهْ حَكِيمْ بَخَشِيدْ دَبَحَرْ دَنَشْ اَشَاتْ مَنَدْ - سَبَرْ خَسِينْ حَكِيمْ اَذْخَوَشَتْ بَرَنَتْ دَوْجَنْ تَهَتْ يَانَتْ
خَوَدْ رَاهْ بَكَلِيَ مَنَزَهْ دَبَرَاهْ اَنْجَهْ دَاهَهْ دَيرْ -

(*Siyar us Sālikin*, pp. 41-42.)

¹⁰ Cf.

هَهْ يَارَانْ باَصَفَاهْ اَرَادَتْ دَوْخَلَانْ تَامْ سَعِيقَهْ اَغْفَتْ خَدَنْ دَوْدَلَاعَتْ اوَبَتَنْدْ -

(*Ibid.*, p. 43).

in 556 A.H. This Indian capital city in worldly splendour and religious and cultural advancement was ahead of its rival, Ghazni. But here too he did not tarry long. After a forty days' vigil at the tomb of his predecessor, Abul Hasan 'Ali bin 'Usmān al Hujvīrī, he left for Multān, and asked his comrade-in-chief, Khwājah Qutbuddin, to go to Delhi and start his teachings there. Before his departure to Multān, the Khwājah composed a fine *qasidah* in honour of the saint at whose tomb he had completed the vigil.¹¹ The first verse runs as follows :

کمال اپر کان نقصان رہنا
لنج خشنیں عالم مظہر نور خدا

The same year he reached Multān where he seriously applied himself for full five years to the study of Sanskrit and the Prākrit of the land,¹² to enable him to come in personal contact with the masses, and preach successfully to them the cult of Sūfism. This appears to be his avowed mission from the very beginning of his career when, in 594 A.H., he had seen Nishapūr sacked at the hands of the *Ghaz Tārtars*, and the magnates and the elite of the town massacred in cold blood and fallen to dust. Having secured his objective, he left for Delhi where he stayed for some time with his *Khalifah* whom he gave fresh instructions on the divine mission entrusted to their care. Finally, he departed for Ajmēr of which, it is asserted, he had been apprised in his dreams. There were neither Muslim institutions here as in Lahore and Delhi, nor had Muslim preachers, prior to him, trodden the ground and left their foot-prints, showing the way to others. His difficulties were enormous, but his determination surmounted all. There were large and powerful Hindu States all round, which had formed a bulwark against the propagation of any such mission in the interior of Rājputānā. He reached Ajmēr when only four and twenty. A tall handsome figure with a *faqir's* mode of living, imbued with a high sense of devotion, a true example of self-denial and service to mankind, with no personal ambition for power or fame, fasting in the day and keeping vigil at night, and plainly dressed in coarse hand-woven cloth, he could not but impress even the most wary. He came during the reign of Rāi Pithorā, and entered the city when the latter was himself present there.¹³ It was the time of the decline of the Ghaznavid empire and the rise

¹¹ *Ibid.*

¹² Cf.

درہ بان پتھر دا سے ہندستان ہے جمیر آمد دیعاوت مولیٰ مشعل شد و پتوڑا نیز
درہ بان درا جمیر بود -

to power of the Ghōrī kings. Sultān Shihābuddin led his first attack on Rājputānā in 587 A.H., when the Khwājah was there for over a quarter of a century, and had been successfully preaching his mission since then among the masses. Rāi Pithorā and his brother Khandē Rāo, the mandatory Rāja of Delhi, gave the Sultān a united front, and their combined armies inflicted a heavy defeat on the latter who was wounded on the battle-field and fled for his life. He was again preparing for a second attack to wipe off the disgrace of his defeat. Meanwhile, the Khwājah was busy with his work, gaining more popularity every day among the State subjects, because of his benevolent nature and saintly living. The public at large and the Hindū nobility, who came to visit him at Ajmēr, felt attracted towards him and the stamp of his virtuous life was impressed on their hearts. Many a stranger and traveller, who came from far off places in search of *light* or livelihood, applied to him for shelter and help which he always ungrudgingly extended. His influence over the gentry and nobility had grown considerably, and a word of recommendation from him in respect of any one carried weight with them, so that the needy seldom returned from his door gloomy and disappointed. It is for this reason that he was popularly called *Gharib Nawāz* (the entertainer of strangers). His motto of life, as he himself stated, was :

¹³

در دلش آنست که جان بندہ برائے کسی بحاجت ایم خود م ناماراد نمگدانا۔

“A *darwish* is he who does not deprive and disappoint any one
who cometh to him for his need.”

Rai Pithorā seemed at first to have no grudge against the Khwājah, because of his innocent and non-political mission, but subsequently smelt the danger, and did not like his growing religious influence which was drawing many of the State subjects to his fold. The worst was that the Sepoys of the Rāja's army too were embracing Islām and becoming his disciples. At this time, the Muhammadan kings of the line of Ghōr were leading their attacks against Delhi and Ajmēr, which endangered the very existence of the Hindū power and suzerainty in those parts. Another factor which enraged Pithorā was that one of his own servants was reported to have embraced Islām and become a devout adherent of the Khwājah. This state of affairs could not be tolerated by the royal house, as it was feared that others would follow suit. The servant consequently lost all favour, and was eventually dismissed from service on some pretext. Thereupon, the latter solicited help from the Khwājah, who sent a special messenger to Pithorā interceding for the servant and recommending his reinstatement.

¹³ *Malfuzāt*, p. 35.

But Rāī Pithōrā not only contemptuously rejected the Khwājah's request, but made adverse remarks, whereupon the latter prophesied Pithōrā's fall from power and his arrest at the hands of the Muslim King.¹⁴ Shortly after this incident, Shihābuddin Ghōrī led his second attack in 588 A.H. The strength of his army, including his cavalry and infantry, was estimated to be at *one lac* against which Rāī Pithōrā's forces were three times as great. The Rājah of Delhi and other ruling chiefs of surrounding territories had brought together on the battle-field a huge garrison with seven hundred veteran fighting elephants to create panic in the rank and file of the enemy at the very outset. Both the armies met at Tīrōrī and tried their strength heroically. At last, after a day's fierce battle the united armies of the Rājā's suffered defeat and Khandē Rāo, the Commander-in-Chief, was killed on the battle-field. Rāī Pithōrā, who at first managed to escape under cover of darkness, fell a captive in the hands of some Pathāns, and was brought back and put to death. *In this way the prophecy of the Khwājah came to be literally true.*

After this victory, the Sultān entrusted the kingdom of Ajmēr to Pithōrā's son, and himself repaired to Ghazni, having appointed Qutbuddin, one of his trusted and able slaves, as the Viceroy of his Indian possessions. Qutbuddin nominated a pious and learned Sūfi, Sayyid Hasan Mashhadi, popularly known as *khang-sawār* (horse-rider), as his Āmil (Agent) of Ajmēr. He was a great admirer of the Khwājah, and, according to some writers, had already become his disciple. This afforded a very favourable opportunity for the Khwājah's mission to succeed and spread in the whole of Rājputāna and Central India. Hundreds of people from the interior of the country visited Ajmēr every day and freely embraced Islām and became his converts. His death occurred at the advanced age of 97, on the 6th Rajab, 633 A.H., on which date his '*Urs* (death anniversary) is held every year at Ajmēr. Later in life, he married the daughter of Sayyid Wajihuddin, uncle of Sayyid Hasan

¹⁴ Cf.

وہم دین اوان یئے از مل زمان پتوہرا بست خواجہ بیعت نوہ ندم از کنہ، ضلال
سیرہ نہیا۔ بھر دست کا جائیں بخ او از ظفر رای و ریان بنتا، و رخنا کشیده و دکھنکا چھاج سکھتہ وجہان
اندہ الیق بخواجہ پڑگ آئد - حضرت اثناء از رای تعلق کریت کریان ایش قاصدیہ نزد پتوہرا بشفاعت فرستادند -
ما پتھر اسماون عالم کر کاہ ادا و شہر سرور دینم بزرگان ران و افغان تکو - چون حضرت ایش سخنیا اور انشیہ نزد فرم
مرجع تفہیب بست و دکھنار خود از قاتا آسم، ما
اور ابیز و دکھنکر دیدم و دایم -

Mashhadi, following in the footsteps of the Holy Prophet, and had issue whose descendants are still the custodians of his tomb.

The great belief of the Indian people in his saintly life and devotion in the service of God and mankind contributed to his immense popularity and endeared him to every heart. His motto of life "*to deprive and disappoint none who cometh to him for his need*" was inviolate in his life-time and even after his death. Millions have since been visiting his tomb every year to have their wishes fulfilled, and what is more important is that they return home successful. The childless get children, the poor money, and the sick health. Akbar the Great went on foot from Agra to Ajmér to pay his homage to the Khwājah in fulfilment of his vow to God on the birth of Jahangir in 977 A.H.¹⁵

He was a Persian by birth, and had come away to India in his early youth when only eighteen. His latent poetic powers were developed and displayed in the new surroundings after his arrival in India. He did not attempt panegyric or epic poetry in the expectation of rewards like the poets of the Ghaznavid regime. Of the various kinds of poetry, he wrote *ghazal* and *qasidah*, every couplet of which is full of divine love. It is also noticeable that the tone of his verses is quite different from the general trend of Persian and Indian composition of his time. He left poetical works consisting of

¹⁵ Cf.

توبه فزون حضرت شاهزادی پادشاه از
دارالخلافه به اجیر و کامیاب شدند... مطلب صوری و مختصری
چهل شماره قصیده پادشاهی است در این شکل که جو یا یک فرزند ارجمند بودند
سماوه با این دختر رفتہ بود که چون این امانت بحکم انجام اراده ایوب ابتکن علی که بنفس متده
شبلق خود را آن بروند باشد که از دارالخلافه آگرچه پیاده بزرگی روزی روز خواه میعنی لذون
چشتی که از تغیان در گاه ایلی اند رفته لوازم اطاعت ایزدی تقدیم رسانند و مقرر بود در رجب
که ماه مرسن گرامی دین است این نیت روز تبرہ بتعلیم آریه و چون آنها کو گورنمنت باب در روح
خلافت ب عمل ایند آمر اینجا بند از شرعاً لطف حق گذاری دو فاصله بعده از لوازم سپاساری
شناخته ... روز جمعه دوازدهم ماه شعبان از دارالخلافه آگرچه پیاده قدم در وادی مرطبه سیانی
و بیان نزدیکی پیاده



Akbar at the shrine of Khwājah Mu'inuddin Chishtī at Ajmer

over seven thousand *bait*,¹⁶ but unfortunately only a small portion of it has survived which is a mirror of the development of Sufistic poetry in India. Dr. R. A. Nicholson, the famous English scholar, who was a great admirer of Persian mystic thought, was deeply interested in the Khwājah's poetry. He had the keenest desire to work, at the earliest opportunity, on this saintly poet and to edit and translate his *ghazals* into English, but for some reasons it could not be accomplished. In this brief review, it is not, therefore, out of place to give some specimens of the Khwājah's *ghazals* with their full English translation for the entertainment of our readers. They throw ample light on the standard attained by him in the art of poetical composition, and also give us an insight into the poetical atmosphere which obtained in India, and which influenced and shaped his Sufistic poetry :

غزل
در حمیری باری تعالیٰ

بود جان و دم را جال نام خدا زراخت تشبیه بایان را زد لای نام خدا
 وصال حق بلی ہنثین باشی بش بسیں وصال خدار وصال نام خدا
 سیان اسم و مسی چو فرق نیست بیان تو در تجھی سما کمال نام خدا
 یقیں بایان که تو باحق نشسته شب روز چو ہنثین تو باشد خیال نام خدا
 ترا اسرد طیران در غصای عالم قدس بشرط آنکہ پیڑی بایل نام خدا
 چوناں او شنوم گر بود مر اسد جان غصای اوتست بعزا و جلال نام خدا
 سین زگتن نامت عول کی گردد کراز خداست ملال طالب نام خدا

IN PRAISE OF GOD, THE HIGH

The beauty of the name of God has robbed me of my heart and soul,
 The pure water of His name quenched the thirsty lips ;
 If thou desirest His Union, be an associate of His name,
 Realise the Union with God in the recitation of His name ;
 When there is no difference in the *Name* and the *Named*, see
 In the glorification of His name the perfection of the same ;

¹⁶ Cf.

حضرت ایشان در مرہ شراری نامدار از صاحب مفتیمات روزگار - اند و در اصناف سمن تفصیدہ منزہ
 مرعی دارند - بحروفہ کلام آنحضرت گنجینہ بیش از ہفت ہزار رسیت بودہ از دست دو ران نامہ بان از میان
 رفت و اندر کے ازان نامہ -

Believe that thou art sitting in the company of God day and night,
When thy companion is the reminiscence of His name ;
It is befitting for thee to fly in the atmosphere of the celestial world,
If only thou fliest with the wings of His name ;
When I hear His name, if there be a hundred lives in me,
I swear by the glory of His name that I would sacrifice them all ;
When does Mu'in grudge the repetition of His name ?
Since the grudge against the name of God is a grudge against God Himself.

دلم

در حمد

دل بحکمہ ارمن بزم عشق در آ که جرعہ از شراب بقادهند ترا
اگر بتا طلبی اولت ننا باید که تفانه خوی ره نی بری به با
تو باز شاهی واز دست شاه پر تیری
ز خلیت بشریت چو بگذری بر سی
صراحت عشق برای تو صدقہم طے کرد
تو چند در طلب یار در بد مردی
تفاوت هستی خود را تو از میان بردار
بیگر صدقہ عشق وزنگ عن بزداي
بکوش تا کرن چشم خبار بر خیزد
اگر تبلیغ فور قدم ہسی خواهی
میں تفاصیل حدوث از جمال خود بکش

IN PRAISE OF GOD

O heart, come to the circle of libertines in the assembly of *love*,
So that they may give thee a draught from the wine of Eternity ;
If thou seekest eternal existence, seek first non-existence,
Because thou canst not get the way to eternal existence unless thou hast
renounced thy own existence ;
Thou art the King's hawk, and thou hast flown from the King's wrist,
Do not intend to fly in any other direction without the King's assent,
come back to the King ;
As soon as thou hast passed the darkness of humanity, thou wilt reach,
From the depth of this lowness, to the height of nearness to God ;

The *burāq* of love has trodden a hundred paces towards thee,
 Thou too shouldst give up hesitation and go a step forward ;
 How long dost thou wander from door to door in search of the Beloved ?
 See within, because thyself is a mirror of all His names ;
 Lift the curtain of thy existence from thy midst,
 Then behold whose beauty becomes manifest ;
 Take the polish of *love* and remove the rust of thy body,
 See in the mirror of thy soul the beauty of thy loved One ;
 Strive that the dust be removed from thy eye,
 So that thou mayest see the blaze of Divine Light ;
 If thou desirest to have the effulgence of *Eternal Light*,
 Mu'in, lift the veil of *mortality* from thy beautiful figure.

وَرَدْ

در مهد

ز پیش خویش بر امگن نقاب دعوی را
 بیس کبرت صورت جان مسی را
 بزرگ بستگی ملاست زجاجه ناموس
 بکوی عشق برخز آبر و می تقوی را
 بجهشت باغ خان خوشة ز خرب من
 بیشم جو خرم کشت زار دنیا را
 بحق او ره کو نین چشم نکشایم
 بزرگ برگ درخت وجود خود شنوم
 اگر ز آتش عشقت بسوشم چه عجب
 که کوه تاب نیا ورد یک بخل را

میں بچشم خرد حسین دوست نمایہ

بیس بدمیده محبوں جمال لیلی را

IN PRAISE OF GOD

Throw off the veil of conceit from before thy *Self*,
 See the beauty of Reality in the clothing of form ;
 Break the glass of prestige with the stone of reproach,
 Outrage the honour of outward piety in the lane of love ;
 Since the garden of Paradise is a mere bunch from my barn,
 I shall not buy the sown-field of the whole world even for half a grain
 of barley ;
 I swear by Him that I shall not open my eye unto the two worlds,
 Until I first see His beauty ;

From every leaf of the tree of my existence I hear
 The secrets of love which that tree told Moses ;
 If I got burnt in the fire of Thy love, it is no wonder,
 For even the Mountain could not bear a single ray of Thy splendour ;
 Mu'in in the beauty of the Beloved cannot be seen by the eye of wisdom,
 See the beauty of *Laila* with the eye of *Majnûn*.

وله
در حمد

کسیه عاشق و مشرق خویشتن به است حریف خود و ساقی انجن به است
 اگر بیدیه تحقیق بگری دا نی کنان خود و شنیده جان و تن به است
 چنان عدو که در جسم و جان من به است اگر تو خرقه هستی خویش پاره کنی
 نظر کنی که مدیں زیر پیش زن به است ز جام عشق نه منصور بخواهد و بس
 که دار نیزه همی لدت باز من به است سوزن عشق کند آشکار و نندیش
 چندل بیدیه که درسته و دلمن بسراست مگو ر رشت رشیان نفعی و حدیث است
 تردد حقیقت شیان نظر فنی به است تنبیه است گر از اعتبار ما است
 ز اعیان گذر کن که ما من به است چنانی که نه برده نی بسب خوش
 چنانی که نه برده نی بسب خوش نهاده برده عاشقان دهن به است
 چه جایی با ده جام د کام ساقی هست خوش بش میش و دم مزن به است

IN PRAISE OF GOD

He who is the lover and himself the beloved, 'Tis all He,
 A companion in solitude and a cup-bearer in the assembly, 'Tis all He ;
 If thou seest with the eye of discernment, thou wilt find
 That the looker into the heart and the one looked to by the body and
 the soul, 'Tis all He ;
 When in the mirror of the heart the reflection of His face appeared,
 I so felt that in my body and soul 'Tis all He ;
 If thou tearest the garment of thy existence,
 Thou wilt observe that under this clothing 'Tis all He ;
 Not Mansûr alone became intoxicated with the wine of love,
 The scaffold also told the rope the same tale : 'Tis all He ;

The secrets of love the heart freely discloses and is not afraid,
Since it has perceived that in what is hidden and what is apparent, 'Tis
all He ;

Do not say that multiplicity is opposed to thy (*idea of*) Unity,
Look into the reality of things, 'Tis all He ;
It is wrong if the impression of we and I is created,
March past this impression, because we and I, 'Tis all He ;
Like the flutist who puts his lip to the mouth of the flute,
He has put His lip to the mouth of the lovers, 'Tis all He ;
What is the place of the wine in the cup, and who is the cup-bearer ?
Be silent Mu'in, and restrain thy breath ; 'Tis all He.

وله
در حمد

مگر صباز سرگوی دوست می‌اید که از زمین و زمان بوی دوست می‌اید
چه شکل است که از یاد می‌برم هر شب که ردمی او نیز چه برمدمی دوست می‌اید
ز نوی دوست چو ما شق کشیده و لایی کنند شرق یعنی از موی دوست می‌اید
و ناچیز نه عقل و پیش با من صفت از نذر جام چیا هری دوست می‌اید
هر رخچ آیدت از غیب نیک و بد منگ همیں بس است که از سوی دوست می‌اید
ازیں مصائب دران مثال و دلیل باش که تیر دوست ن پیدوی دوست می‌اید
بیا به وغط میتی رموز عشق شنو که از حکایت او بوی دوست می‌اید

IN PRAISE OF GOD

Methinks the breeze comes from the lane of the Beloved,
That the Universe is filled with the fragrance of the Beloved ;
How jealous am I of my power of recollection every night !
Why does it place its face on the face of the Beloved ?
When the lover has withdrawn his feet from the lane of the Beloved,
An attractive snare is laid from the curly locks of the Beloved ;
How could my senses remain faithful to me when I am intoxicated ?
Since the cup of ecstasy comes from the Beloved ;
Whatever comes to thee from Invisibility, do not look into its good or bad,
It is enough for thee that it comes from the Beloved ;
Come to the preachings of Mu'in and hear the secrets of love,
Because from his speech comes the breath of the Beloved.

His Poetry Reviewed : Comparison with Hāfiẓ

He was the greatest lyric poet of his age. His style is exuberant and precise at once. His poems are a store-house of transcendental thoughts beautifully arranged and forcefully expressed. There is always a tinge of pious serenity and joy in his verses which are teeming with Divine Love.

Of all the Persian poets of the Sūfi class who wrote *ghazal* like Sa'di, Khusrau, Hasan, Hāfiẓ, Jāmi and others, his poetry closely resembles that of Hāfiẓ. But his wine, tavern, cup-bearer and the object of adoration are at the first sight celestial, unlike the latter's wine, rose, nightingale and the tresses of damsels which expose the poet to public criticism as being the greatest free-thinker and libertine of the day. None of these words, however, in the Khwājah's poetry have got their material significance, but are pregnant with great spiritual truth and are symbolic of Divinity and Divine Love.¹⁷ The young lovers invariably find a solace in Hāfiẓ's poetry, because they read their own thoughts in his utterances. This is why Hāfiẓ is more appealing and popular.

Much controversy exists on the point whether Hāfiẓ's love is material or spiritual, and whether his roses are those of a flower-garden or they are only a symbolic representation of Divine Beauty. The answer is that it is both. If we see and read Hāfiẓ with the eye and brain of a worldly lover, we find it full of حباز, but if we look at it with the perspective of a Sūfi, there is much حبیت in it. This is the real characteristic of Hāfiẓ. To those who hold that his love of God is expressed in the terms of material love, his poetry provides real food, perhaps more than does any other author after Rūmī. Sometimes, his language does not keep pace with his thoughts, and he becomes vague and hidden in the clouds of mystery. He paints without distinction, every Divine and earthly thought in the light of human and worldly concept. Throughout his poetry he gives us a hint that he had such a great love for wine in his life-time that he even desired the regular topers to attend his grave after his death. He, thus, works on our minds in such a way that by his love for wine we generally understand the wine manufactured and sold in the market. Again, his longings for the Persian girl, *Shakh-i-Nabat*, whom he remembers with the affection of a lover, are too well known. His early life was a free unrestricted life. He professed Sūfism in his later age, but,

¹⁷ Cf. his own statement :

بایو بند سینه روز گشت خنده که از کلایت آدمی دست می آید

though he became a Sūfi, one could conclude from his odes that he has given expression to earthly love and pleasures. When Mubārizuddin Muhammad bin Muzāffar, who was a harsh and stern monarch, forbade the drinking of wine publicly in the street of Shirāz and ordered all the taverns to be closed, Hāfiẓ gave vent to his chagrin in many an ode¹⁸; but when Shāhī Shujā raised all those restrictions which were imposed by his late father on drinking and profligate life, Hāfiẓ became very happy and expressed his gratification and joy in his poems.¹⁹

The Khwājah's poetry and personality, however, are above such suspicion and have no mystery about them whatever. He was a Sūfi out and out, and his early life and occupation are blameless. His allegory is clear and is nothing but a straight talk. He does not sing of the worldly love which is full of anguish, torment and passion, but consecrates his mind to the Holy love which is sublime and unalloyed, and discloses the real secret of life and the utility of our existence. He takes his readers along with him solely to spiritual ecstacy, and gives them a peep into the ethereal world. The more impressive trait of his poetry is a sturdy spirit of independence which is lacking in others, including Hāfiẓ. He never cringed before any Prince for reward. In the whole range of his poetical composition, there is not to be found a single *ghazal* or *qasidah* in praise of any magnate, nor even the Sultān himself. He was the master of a most dignified and magnificent style, although *love*

¹⁸ Cf. his lament and denunciation in the following *ghazal*:

اگر باده فرج غش و با گلبریست
بایانگ چنگ خود ری که محب تیراست
به قتل کوش کر ایام فتنه نیز است در سین مرتع پایه نپیان کن
در رنگ امداد بشویید خر قبار اشک که موسم درع و دروز گلبار پیر تیراست
که صفت این سرخ مجد دهد ای آمزات
که قدره اش سر بر کسری زیاج پر تیراست

سپه برشند پر دیزن است خون نشان
عراق و پارس گرفت بشر خود حافظ . یا که فوت بنداد و قیمت تیر تیراست

¹⁹ Cf. his exultation :

که دور شاه شجاع است می دیر بتوش شده آنکه این نفوذ بر کناره می رفته
بایانگ چنگ بخوبیم آن حکایتیها که از نهضت او و گیل سریش عاند جوش
بروی یار بتوشیم و بایگ و شاکوش زیوی سیکله دو شمش بدوش می بردند
مریز مصلحت ملک غر را دانسته گذاهی گوش نشینی تو حافظا غر کوش

سرزمانیت نیم رسیده مزاده بکوش
هزار گونه سفن بر دان و بک خارش
مشراب خانگی اذیبم محب خوردن
ایام شیره که سجاده می کشید بدوش

and *wine*, the common symbol of Persian poetry, are equally the dominating feature of his composition. In a word, the Khwājah's wine is truly depicted in the following verse of his :

مَارِزَتْرَحْ بَادِهُ سَرْدَیْتَ نَزِينَ بَادِهُ تَقْسِيرَهُ مِنْ بَيْخَدَیْتَ

The wine of Hāfiẓ is, however, uncertain ; and though his poetry in manner and expression is exquisitely charming and sweet, it lacks the stamp and the fire of the Khwājah.

REALITY OF TIME

BY DR. D. G. LONDHE, M.A., PH.D. (LEIPZIG)

PHILOSOPHICALLY speaking, the most vital question about Time is the one that raises the issue of the reality of Time. From the point of view of science, this question is rather irrelevant. Science concerns itself only with description and systematisation of the temporal characteristics of objects as given in sense-experience ; hence for science the most important issue as regards Time is the one that attempts to define moments or ideal instants on the one hand, and the one universal time-system, on the other. In the doctrine of modern physical science, however, it is more correct to say that there are different time-systems proper to different bodies. But from the point of view of philosophy the most relevant question is 'Is Time real ? ', as it is concerned with the task of co-ordinating and harmonising the pre-suppositions and results of the different branches of knowledge and above all with arriving at the ultimate and the foundational fact in experience as a whole.

Before answering the question 'Is Time real ? ' either in the affirmative or in the negative, we must state precisely what is meant by the term 'real'. The term 'real' may mean, firstly, as it does, when viewed very superficially, 'existing' in the external world just like chairs and tables, but this meaning is out of question in the case of time and may be summarily rejected. Secondly, it may mean 'being' as an aspect of things, that is to say, 'existing' in a secondary sense as qualities or attributes of real things. It is a plausible meaning but it is exposed from the outset to the criticism that the distinction between the primary and secondary kinds of existence is presupposed here, and that this implies the distinction between reality and unreality understood as what is ultimate or otherwise. This already brings us to the third meaning of being 'real' namely that which is ultimate, unconditioned, self-existent. That Time is not ultimate seems to be an instinctive belief, and apparently does not stand in need of any rational demonstration. There is some inexplicable feeling in us which does not allow us to take Time as the bed-rock of experience. Russell probably refers to this instinctive belief when he writes : " Nevertheless, there is some sense—easier to feel than to state—in which time is an unimportant and superficial characteristic of reality. Past and present must be acknowledged to be as real as the present, and a certain emancipation from slavery to time is essential to philosophic thought. The importance of time is rather practical than theoretical, rather in relation

to our desires than in relation to truth . . . Both in thought and in feeling, to realise the importance of time is the gate of Wisdom."¹ But a mere statement of a fact of feeling is not an argument; if feeling were an argument, philosophy would be mellow mysticism. The grounds that justify the apparently intuitive belief are supplied by the following considerations: In the first place, as regards the external world, time cannot be taken as ultimate ; for if it were, it would be either successive or not—this regress would be necessitated by its essential characteristics as succession. Succession, to be genuine, implies some background against which it is known as being successive. Now it can be shown that it is not successive; for, *ex hypothesi* time is ultimate and there is nothing against which it is known as successive. Nor again can it be not successive, for time as we know it is essentially successive, and how there can be time which is not yet successive, is what passes our comprehension. In the second place, if we take time as unconditioned, we find that this also does not hold. For time is conditioned, at least so far its knowledge is concerned, by change. If there were no change, we would never have any conception of the passage of time. Hence change or becoming is the essential condition of Time. Time in itself and unconditioned is nothing. This argument would also hold against the conception that time is ultimate in the sense of being self-existent. We thus see that there is a rational justification for the feeling that time is not ultimate and in this sense not real.

There is possibly a fourth meaning of the term 'real' namely, self-consistent, free from contradiction. Here there is a distinct reference to a logical criterion of reality, such as self-consistency, that is absence of contradiction. Whenever, therefore, an attempt has been made, in the history of philosophy to show that time is unreal, some contradiction has been pointed out in the characteristics of time as it is experienced. We have to take account of the different arguments intended to prove the unreality of time by exposing the internal contradictions thereof.

1. We shall take first Bradley's argument. As regards constructed or abstract time he makes out that it is obviously made up of units, and units, strictly speaking, are without duration. But, then, time as made up of these units would itself be without duration, just as mere addition of zeros would not yield a significant number. And yet time as we know it, would be nothing if it is not duration. Time must have duration. If, however, it, as a whole, has a duration every part of it too must have a duration. But unit with a duration in it is no longer a unit. Either way, then, constructed time

¹ *Our Knowledge of the External World*, pp. 166-67.

is inconceivable. But more important than this is the consideration that the essence of time is succession, one-after-another-ness, 'before-and-after-ness'. But in spite of this diversity and succession it must still be a unity somehow. To quote Bradley's words, "Time, in fact, is 'before and after' in one; and without this diversity it is not Time". These differences cannot be retained in unity, as they will lead to internal discrepancies, nor can they be thrown out as in that case, the very essential character of time is forfeited. It may be suggested, to avoid these difficulties, that time is a relation of before and after. In this case 'before in relation to after' is the essence of time. Bradley urges us against this suggestion that in avoiding Scylla it has only struck against Charybdis. For here the trouble about the nature of relations, as also that of relation of the relations to the terms, stares us in the face.

Leave aside constructed time and take time as immediately presented. Here the 'now' is found to be neither simple and indivisible, nor comprehending diverse objects. The 'now' is not simple because the character of time is, as we have seen, 'before and after in one', and hence it is diverse. Nor can it be understood as comprehending diverse elements because, in that case, past, present and future will enter into the constitution of the present. But if the 'no longer' and the 'not yet' reside in the bosom of the 'now', it will hardly retain its character as the 'now' in its pristine purity. These different elements of the 'now' are, moreover, involved in a process; the 'not yet' becomes the 'now' and the 'now' lapses into the 'no longer'. All this is going on in the bosom of the 'now'. But the process already implies the relation of the earlier and the later, thus landing us again in the insoluble puzzle of the relations. And, on the other hand, if no process is admitted in the 'now' and it is regarded as a 'solid block', it fails to yield succession which is the essential character of time.

2. Such in outline are the inconsistencies and contradictions which Bradley finds fatal to the reality of time. We agree with Bradley so far as his treatment of the time of the immediate presentation is concerned. The 'now' strictly speaking should have no temporal thickness, but the experienced now embraces a twofold transition—that of the future moment to the present moment and of the present to the past. And this certainly goes against the simple unanalysable character which logically it should possess. But the argument which Bradley levels against the constructed time seems to us to be unsound. For he has somehow resolved the issue into the puzzle of the nature of the relations. It is still an open question whether the nature of relations is a puzzle or not. We think that it is not. But here we cannot enter into a discussion on the nature of relations. Let it suffice to say that relation is not a puzzle as Bradley supposes. Again, Bradley's criticism of

the constructed time seems quite superficial and untenable. His first alternative 'if time be taken as made up of units without duration, etc., is altogether gratuitous. Even in the case of the so-called constructed time, it is not made up by the addition of definite quanta or 'epochs' of duration given in experience. Objects immediately apprehended possess a certain durational extension, a temporal thickness. This is expressed by James thus "Our acquaintance with reality grows literally by buds or drops of experience". The unit, then, of constructed time is not one without duration and hence Bradley's contention that time as a whole will be without duration as it is made up of units without duration, does not stand a close and careful scrutiny. His other alternative, namely, if time as a whole has a duration, then, each unit must have some duration but as a matter of fact according to its strict definition, it cannot have any duration, rests on the same mistaken notion of a unit. Probably he is confusing mathematical instant which is an ideal entity with no temporal thickness with the unit of time as given in direct awareness of objects, with definite amount of duration. We must carefully distinguish between these two entities. Mathematical instant is after all a construction in the same sense in which the one universal, all-engrossing time is a construction, inasmuch as both are not immediate data of experience, but are arrived at by a process of abstraction from the immediate data, with this difference, however, between them that the universal time is a process of construction which has a direction towards the infinite, while an instant is the result of a process of construction which has a direction towards the infinitesimal. The starting point in both the constructions is the same, namely, definite quantum of duration given in experience, the difference is only in the direction.

We think, therefore, that Bradley's argument is invalid so far as the constructed time is concerned but valid so far as the experienced time with its internal contradiction is concerned.

And now we have a harder nut to crack. We have to consider McTaggart's argument for the unreality of time. McTaggart begins by pointing out that there are two kinds of distinctions involved in what we regard as time-experience: the distinctions of past, present and future form one kind, while the distinctions of earlier and later form the second kind. He calls the distinctions of the first kind the distinctions in the A series and those of the other kind distinctions in the B series. He further adds that the distinctions in the A series are more fundamental to time-experience than the distinctions in the B series. Hence he thinks that if he aims at showing that time is unreal all that he has to do is to expose the inconsistencies and contradictions lurking in the characteristics of past, present and future which form

the A series. Stated more simply, any proof of the unreality of time, according to him, must concern itself with showing that the A series is involved in a hopeless tangle of difficulties. For the sake of convenience we shall deal with this argument in two parts:

(1) The characteristics past, present and future are not qualities but relations and hence they give rise to relational properties. These properties change. If, then, anything is to be called past, present and future it must be related to something else. This something, again, must be conceived as unchanging and existing outside the time-series. For the relations in the time series do not change; if two events are separated by a certain period, whether by an hour or a century, they for ever remain so separated. From the beginning of creation to its end nothing will alter the distance between these two events. But even if the temporal distances between the events do not change, the characteristics of events, namely, past, present and future do change. Now if these changes must have some determinate character they must necessarily be related to something that does not change. But the most important thing to be noted here is that though an unchanging something is in urgent demand, it is not to be found. If, however, such a term outside the series is not to be found, the A series becomes meaningless and even impossible. For A series is A series, when each of its terms has, to an entity X outside the series, one and only one of these indefinable relations presentness, pastness and futurity, which are such that terms which have the relation to X fall between the terms which have the relation of pastness to X on the one hand, and all the terms which have the relation of futurity to X on the other. But such a term is not to be found. This is damaging to the reality of time, as the A series is fundamental to time. In short, then, this part of the argument shows that past, present and future are changing relations of events. If anything is to be strictly called past, present or future, it must be related to something outside the time series, but unfortunately such an entity cannot be found. Hence A series and consequently time is unreal.

(2) But a more important consideration against the reality of time, according to McTaggart, is the following: "Past, present and future are incompatible determinations. Every event must be one or the other but no event can be more than one. If I say that any event is past that implies that it is neither present nor future and so with the others. And this exclusiveness is essential to change and therefore to time. For the only change that we can get is from future to present and from present to past. The characteristics, therefore, are incompatible. But every event has them all. If M is past, it has been present and future . . ."³

³ *The Nature of Existence*, Vol. II, p. 20.

3. Such is the irreconcilable contradiction which McTaggart finds in the temporal characteristics of past, present and future. And whatever is contradictory must be unreal. The A series, therefore, is not real and hence time also is not real. The concept of the nature of change on which the structure of McTaggart's argument rests is peculiar and offers special difficulties. He thinks that change is nothing but the alterations in the relational properties of past, present and future. Only these characteristics of events change. All the other facts about Queen Anne, for example, all the facts about events are fixed and unalterable. In the case of the death of an English Sovereign that it has such and such causes, that it has such and such effects, etc., remain the same. The only things that change about it are, that once it was an event in the remote future, then it became an event in the nearer past and then it became an event in the remote past. Thus it is claimed that the temporal characteristics of an event alone change all other facts about it remain unaltered.

4. The error in this view of change seems on a close and careful analysis of the situation to arise from a mistaken notion of an event. The event is here taken as a unique self-existent and self-complete entity. This is certainly an abstraction. An event itself is a change in a substratum, or to speak more correctly, in a situation. The event of the death of Queen Anne is itself a change, the last change in the series of the physico-chemical changes in the organism of an English Queen, and only a certain change in the socio-political organism of the English nation. So, then, an event itself is a change, a 'creature in the process of the creative advance of nature', to use Whitehead's phrase. If event is but a change McTaggart's dictum that only the temporal characteristics of an event change, all to other facts about it remain unchanged, comes to mean that temporal characteristics of change, change, all other characteristics of change amounts to saying that temporal characteristics of change alone change while certain determinants of change do not change. At this stage it is easy to see that there is change as a primary fact apart from temporary characteristics. This is what McTaggart's dictum properly analysed and logically followed brings us to. But if there is change as a fundamental fact independent of the temporary characteristics, it is not obviously true as he claims that only temporary characteristics change. There are changes elsewhere than in the temporal characteristics which after all may be only a convenient means of indicating those changes. Changes of temporal characteristics have only a secondary and derivative significance. It may be asked what is the precise sense in which there is still change even if no facts about an event change, change, precisely in itself and apart from other extraneous considerations, is only a passage from state to state. In this

sense at least change is a fundamental fact and as such does not depend for being upon extraneous circumstances. This is the point which Gotshalk has specially emphasised against McTaggart's contention. He makes out that there is change, even if no fact of an event changes. "In the case of the event of the fountain pen full at t and slowly losing its ink and becoming empty at t' , it can be easily seen that even if other facts about this event are incapable of change there are two root facts which make changes possible, viz., (1) that M is an event and (2) that M as an event is a passage of my pen P from an earlier state N to a later state O. And in this change is possible. Change—at least in one valid sense is a passage from state to state. Moreover, since this change would be a fact and the facts here would always be so" (article on "McTaggart on Time" *Mind*, January 1930). Thus it is evident that there is change even if no fact about an event changes, and hence McTaggart's proposition that there is no change if no facts of an event change is quite untenable.

Yet there remains one more consideration about the view of change we are considering. According to this view the only changes that take place are in the temporal characteristics of events, that is to say, an event which was once in the far-off future comes in the nearer future, that in the nearer future becomes an event in the nearer past which ultimately becomes an event in the remote past. In this picture of the marvellous sliding down of events, a point is illegitimately assumed to be stable, with reference to which, that is to say, past which this sliding takes place. An event of the remote future is said to be coming nearer, and then becoming present. But what is it to which it comes nearer and then becomes co-present with? Is it not some state of the thinker's mind which is assumed to be stable, for the purpose of the statement of the sliding movement? But this assumption is unwarranted. That state itself is involved in the sliding process and it is rather arbitrary to suppose, in an implicit way though not in an explicit way, that a point is stable and with reference to this stable point changes in the temporal characteristics of events derive a significant meaning. As a matter of fact this particular state of mind is itself a slippery measure of change and a measure which itself stands in need of being measured by another measure and this regress is without end.

To regard, then, that change exclusively consists of the variation in the temporal characteristics of events is a faulty interpretation of facts. The mistake here lies in taking what is only subsequent systematisation for what actually happens, in confusing an intellectual formula with a veritable occurrence in *rerum natura*. In Gotashalk's words "the fact of change is a fact, as permanent as the existence of event". But inasmuch as an event is what

it is by virtue of the fact of change, change must be regarded in the last analysis as the fundamental fact and variation in the temporal characteristics is only an expression of this fundamental fact. Our conclusion on this point is that change does not consist merely of the alteration of the temporal characteristics, as McTaggart believes, but it is a root fact in nature.

We agree, however, with McTaggart when he maintains that the A series, that is, the distinctions of past, present and future is vital to time. It follows from this that if it can be shown that the A serial characteristics involve a contradiction, the reality of the A series, is endangered and consequently the reality of time is also jeopardised.

5. We should now critically consider the first part of McTaggart's arguments against the reality of time, namely, that part which aims at showing that the A series is impossible. He contends that the characteristics of past, present and future imply changing relations and that if we are to secure some determinateness these must be referred to an entity which is not in the time series; such an entity, however, cannot be found. We make bold to suggest that we need not despair in this matter. Such a timeless entity is to be found in the Self—the Self which is the unchanging substratum of the changing states and processes of the mind, the Self, in other words, which is the original unity manifested in the momentary mental states and not the self which is understood merely as the empirical principle of continuity hypostatised logically into a metaphysical entity. It is with reference to this which is not in the A series (and not even in the B series) that we get determinate character to the changing relations of past, present and future as belonging to events both internal and external. This timeless self is one way of escape from the impasse into which McTaggart apparently has landed us.

6. Another way is suggested by Gotshalk. He claims that the A serial relations are not changing relations as McTaggart seems to suppose, and also in the sense in which they are changing relations, their changing can be explained without supposing a timeless entity X. Now firstly, they are not changing relations, because with reference to some other event particularly chosen, they do not change. In the case of the example of the death of Queen Anne, the relation of the event of the death of Queen Anne to the event of the death of Queen Victoria does not change but remains constant. As regards the second point, the A serial relations of an event may be said to change, when we orient it to some other three events suitably chosen such that the first of these precedes the given event, the second is contemporary with it and the third succeeds it. Thus the change of relations of a given event may be explained with reference to a set of other events suitably chosen

and hence the help of a timeless entity need not be invoked as McTaggart thinks it necessary. In this way Gotshalk concludes that the reality of the A series is not contingent as it is alleged, to the existence of a timeless and impossible X.³

Our first comment on this consideration of Gotshalk is that it is not true to say as he contends that the A serial relations are not changing. Curiously enough the case he has chosen to establish this point falls rather in the category of the relations of earlier and later, that is, in the category of the relations in the B series. But in this sense McTaggart himself would admit that these relations are unchanging; that is to say the distances between events such as the death of Queen Anne and the death of Queen Victoria are, by McTaggart's own admission, permanently fixed for all eternity. So the denial of the change of relations in the A series, as pressed against McTaggart and illustrated by unchanging relations in the B series is altogether misplaced and pointless.

Our second comment is that the suggested orientation of the event in question to some other three events suitably chosen will not serve the purpose for which it is invented. For it is only superficially that they account for the change of relations. They in themselves are not permanently fixed, and require to be referred to some other events, and because the events to which they are referred have no determinate character, of their own, the orientation in question will scarcely be of any avail. It might be said that even if they are wanting in determinate character, they will serve in yielding what might be called a workable determinateness to the events and their temporal characteristics with which we originally started. But we must remember here that such pragmatic considerations are mere spurious satisfactions, so far as genuine metaphysical issues are concerned. Thus we see that the question of securing determinate character in the changing relations of past, present and future is not solved by the suggestion of Gotshalk, namely, the help of a timeless and impossible entity X need not be invoked and the purpose in hand will be served by three other temporal events suitably chosen.

7. Now we come to the more important part of McTaggart's argument: Past, Present and Future are incompatible determinations, yet every event has them all. They must be exclusive but they are not exclusive. This contradiction is fatal to the reality of the A series and hence to time. And there is no escape from this contradiction, according to McTaggart even if it is pointed out that the characteristics do not belong to the event simultaneously, but only successively. Now Gotshalk undertakes to show, against

³ *Loc. cit.*

McTaggart, that this suggested escape from the contradictions is legitimate and meets all the conditions of the situation satisfactorily and that the alleged further contradictions conjured by McTaggart are gratuitous. We think that Gotshalk's considerations are very penetrating and serve to give a good insight into the issue on hand, and hence we shall be justified if we concern ourselves with them for a time.

A genuine case of contradiction occurs only when two opposite characters belong to one and the same thing under the same conditions. But here past, present and future belong to an event under different conditions, and not under the same conditions. So they are compatible under the condition of successiveness, and incompatible under the condition of simultaneity. These characteristics, being compatible and incompatible under different conditions, do not suffer from an internal contradiction. This is, therefore, an effective escape from the supposed contradiction. But McTaggart would not allow such an easy victory to the upholder of the reality of time. He would analyse the statement that an event *is* present, *has been* future and *will be* past, and make out that it only means that it is present at a moment of present time, future at a moment of past time and past at a moment of future time. "But every moment, like every event, is both past, present and future. And so a similar difficulty arises. If M is present, there is no moment of past time at which it is past. But the moments of future time in which it is past are equally moments of past time in which it cannot be past". And similar difficulties will arise as regards 'M is future' and 'M is past'. Thus it is that fresh difficulties arise out of the very nature of temporal characteristics.

Gotshalk points out against this portion of McTaggart's argument that the supposed contradictions do not really exist. For instance, take this statement. "But the moments of future time in which it is past, are equally moments of past time, in which it cannot be past." The contradiction is that the future moments at which an event has one of the temporal characteristics, namely pastness, are also moments of past time at which the event cannot have that determination of pastness. He attempts to explain away the contradiction thus : When are the moments of future time, in which an event is past, also moments of past time ? Under at least one condition these future moments are not at all moments of past time, namely, when the event is present. When it is present, these moments are moments of future time and they are not at all past then. These moments can be moments of past time when the event is dead past. When these moments are equally moments of past time, they are the very moments in which the event "can and does have that determination of pastness !" When the future moments at

which M (*i.e.*, the event) has the determination of pastness are equally past, they are not moments of a time when M cannot be past, but are the moments of the very same time at which M is the dead past."

Thus it is shown by Gotshalk that the alleged contradiction is not true but only 'specious', that is to say, it disappears when the conditions under which the future moments in which M is past, can alone be moments of past time, and the condition under which they cannot be moments of past time, are distinctly specified : namely, the one is 'when M is past' and the other is 'when M is present'. This statement that the future moments in which M is past, are equally moments of a time in which M cannot be past, is true only superficially and vanishes on closer scrutiny.

The same can be said about the second contradiction : "Again, that M is future and will be present and past means that M is future at a moment of future time, and present and past at different moments of future time. In that case it cannot be present or past at a moment of past time. But all the moments of future time, in which M will be present or past, are equally moments of past time." More clearly stated, the future moments in which M will have one of the two determinations, presentness or pastness, are equally moments of past time at which M can have neither of the two. The first part of this is similar to the statement about future moments just considered, and is therefore, left out. The other part is that 'the future moments in which M will be present, are equally moments of past time in which M cannot be present'. It is shown in this connection that there is one condition under which alone the future moments in which M will be present are also and equally past. These future moments are not at all past when M is future or present. They are future or present then. And so far, namely, when they are future or present, they are not equally moments of a time in which M cannot be past. They are indeed moments of a time in which M can be and is present, or can be and will be present. So the alleged contradiction does not exist. In another way also the same conclusion can be established. These future moments in which M will be present, are also past under one condition, namely, if M is past these moments are also past, and only then. But if M is past, it was present. Thus the contradictory proposition is found to be false. For these future moments in which M will be present, are, as truly past, not moments of a time in which they cannot be present. They are indeed, as past, moments of a time at which M was, and can alone be, present.

Here also the contradiction is found to be 'specious', that is it disappears when the two conditions are distinctly specified : namely, the one,

under which the future moments in which M will be present, can alone be moments of a past time, is 'when M is past,' and other, under which the future moments in which M will be present, cannot be moments of past time, is stated as 'when M is present or future'.

Thus Gotshalk has shown that the contradiction which according to McTaggart internally distracts the temporal characteristics is true only *prima facie* and disappears when the situation is carefully scrutinised, and the different conditions are plainly stated. He has taken it as certain that the contradiction arises from the ambiguity of statement, or rather, from the omission of the statement of the conditions under which the future moments, for instance, can be, or cannot be, past. But we think that in this line of attack on McTaggart, Gotshalk has not taken account of a point which we think to be vital to McTaggart's argument. This point is that the contradiction arises from the nature of the terms, past, present and future, and not simply from the impossibility of defining these terms. And the reason for this inherent contradiction is that the moments, like events, are both past, present and future. Hence it is that any attempt to ascribe these characteristics to events involves a contradiction, unless it specifically states that the events possess these successively. But succession in its own turn implies a fresh distinction of past, present and future. And to avoid this contradiction it will be necessary to refer to a fresh distinction of past, present and future. This regress is infinite and thus the original terms can never escape the inherent contradiction. Thus it is that the contradiction of the temporal characteristics is inherent in the nature of the terms and is not due to an omission of the specification of the conditions as Gotshalk seems to suppose. What we contend may be substantiated from McTaggart's own words.⁴ "It may be worth while to point out that the vicious infinite has not arisen from the impossibility of *defining* past, present and future without using the terms in their own definitions. On the contrary, we have admitted these terms to be indefinable. It arises from the fact that the *nature of the terms involves a contradiction* (italics ours) and that the attempt to remove the contradiction involves the enjoyment of the terms, and the generation of a similar contradiction."

We shall, therefore, be justified if we say that Gotshalk has slightly missed the mark in his refutation of McTaggart's argument. It is still left unrefuted as long as it is not shown that the nature of the terms, past, present and future does not, in itself, involve a contradiction. Any successful attempt at refutation of the argument in question will have to prove, in our

⁴ See Note 1. *The Nature of Existence*, Vol. II, p. 22.

opinion, the falsity of the statement that every moment, like every event, is both past, present and future.' For unless this regress is anyhow avoided, the original set of characteristics with which we start cannot be shown to have escaped the contradiction. We must, then, analyse and see whether every moment, like every event, has the characteristics of pastness, presentness and futurity. The proposition that every moment, like every event is both past, present and future, means evidently that every moment is an entity with reference to which we are able to distinguish past, present and future. This must be the only meaning, because a similar proposition as regards an event must mean the same, that is, we are able to distinguish past, present and future with regard to an event. Now the question is : Can we really distinguish between these characteristics of a moment ? Our answer is that we cannot. For, in order to do this, we need to have experience of a moment in itself before we can say that this moment has the characteristic either of present, past, or future. And this is quite necessary, because the opposite is unthinkable. Suppose that the moment is not experienced in itself, but is experienced with some one of these characteristics, it is quite an open question as to what that character is. If one contends that it is present, the other may claim that it is past and so on, there is nothing by which it can be objectively determined. But then, if the moments are not experienced in themselves we can never say that the moments *have* different characteristics. It is here that an essential distinction between an event and a moment arises : and event is something apart from the moment, at least in the sense that it has got other characteristics than the temporal ones, while a moment is nothing apart from its relation to an event. Hence events may rightly be said to have the distinctions of past, present and future while a moment cannot be said to have these distinctions.

Another point to be noted in this connection is that the change of these temporal characteristics has a definite significance so far as events are concerned, inasmuch as all other facts about them such as essential nature, causes and effects, etc., remain absolutely the same, admitting for the present McTaggart's view. But the change of the characteristics has hardly got any intelligible meaning because there are no 'facts' so to say, about moments. Moments are altogether colourless, and abstract. The proposition, that they have the characteristics of past, present and future, as applied to moments, seems to be quite meaningless. If, however, it is used in a secondary and derivative sense it may be made to yield some sense, but in that case it is only a metaphorical expression and as such is of little avail for metaphysical purposes.

Lastly, the proposition 'every moment, like every event, is both past, present and future' is an argument in a circle. First it seems to be assumed that a moment is like an event and on the ground of this assumption it is further argued that because, every event is both past, present and future, and because, every moment is like an event, every moment is both past, present and future. And this is clearly arguing in a circle. It is yet open to challenge the truth of the assumption that every moment is like an event. We have just pointed out an essential distinction between an event and a moment. McTaggart has not produced any proof for this. So until this is separately proved, the conclusion which is based implicitly on this assumption, is not logically secure. It may be urged against this interpretation, that in the proposition in question, the phrase 'like every event' is only introduced by way of comparison, and not for substantiating the main statement, just as we say that John, like James, is a man, wherein the humanity of John is not meant to depend upon the humanity of James. Our reply to this defence is that the phrase then becomes quite irrelevant, and the proposition does not carry with it any logical validity and is thus altogether devoid of any point and force.

For reasons outlined above, we think that moments cannot be said to have the characteristics of past, present and future. If so, a point that is vital to McTaggart's argument is to be given up, and with it the structure of the argument falls to the ground. But it may not be hastily concluded from this that time will then be real as the argument for its unreality is found to be untenable. There is no reason to suppose that McTaggart's is the only argument for the unreality of Time. It is still open to argue for the unreality of Time by showing some other contradiction in the characteristics of past, present and future, or by showing that it is not ultimate or foundational in experience.

Before we proceed to give our own argument for the unreality of time, it is advisable to consider Broad's criticism of McTaggart, taking account at the same time, of his own doctrine of time. For, this will complete the critical survey of a more or less connected line of thought on this subject.

8. The main question is broached by Broad thus : How are we to reconcile the temporal qualities of an event ? There are two possible answers : either to hold that the temporal qualities of things, may be referred to changes in things, that is, in other words, the changes of time may be regarded as changes in time. This is the answer given by McTaggart as we may recall. This is, however, circular and vicious. Broad chooses to accept the other alternative. Or, to maintain that the temporal characteristics are relational,

'like large or small'. Now according to Broad, it may be universally admitted that there is no incompatibility, if one thing is small at one time and becomes large at other time. Every one is a baby first and then becomes a full-grown man afterwards, but no one considers it as an incompatibility. (His example is on Tom Jones becoming taller than his father.) In this case there are two sections of a life-history such that in the one, the relation of the son to his father is 'shorter than' and in the other, the relation concerned is 'taller than'. But there is another kind of change: for instance change in which Tom ceases to be the youngest son of James. Here the change in the situation is caused by another creature coming into existence. The relational property, *viz.*, ceasing to be the youngest son, is a new property due to a creature that was not in existence before, but that comes into being only now. The difference in this kind of change from the former one is that here change consists in acquiring a new property altogether while in the former case it consists only in losing one property and getting another. According to Broad, change from present to past consists in losing one property and acquiring another while the change from future to present consists in acquiring a new property altogether as the thing that was future was nothing existent then, but now comes into existence. To quote his own words "when an event which was present becomes past, it does not change or lose any of the relations which it had before ; it simply acquires in addition new relations it could not have before, because the term to which it now has these relations were then simply non-entities."⁵ It will be observed that such a theory as this accepts the reality of the present and the past, but holds that the future is simply nothing at all. "Nothing has happened to the present by becoming past except that fresh slices of existence have been added to the total history of the world."⁶

Thus Broad specially warns us against taking the change from future to present as being similar to the change from the present to the past, which latter is, in his opinion, like the change of attributes of a thing, say, red and green. According to him the change from future to present is fundamental, that is it is presupposed in the other kind of change. The change from future to present is literally becoming that is, 'coming into being'. Here what *was not*, comes to *be*. And because something new comes into existence, the change of qualities is made possible. This is the reason why the change in the former sense is more fundamental than the change in the latter sense.

⁵ *Scientific Thought*, p. 66.

⁶ *Loc. cit.*

It will be easily seen that this theory of change contradicts McTaggart's theory that the only change possible is of the temporal characteristics, in two respects—firstly, it does not regard the changes of temporal characteristics as being essentially of the same status, but makes one kind primary and fundamental and the other secondary and derivative. Secondly, it does not regard change as such to consist in the alterations of temporal characteristics. The reason adduced is that to think of change in this fashion is to make the erroneous supposition that the past and even the future are 'given', ready-made so to say, in the same manner as the present, and the focus of consciousness passes successively on different portions of the block-like stretch of events, 'like the policeman's bull's eye', illuminated portion being regarded as the present.

The important point in Broad's treatment of the subject is the doctrine that the future is non-existent. In order to substantiate his contention he has to face the question : "If future is nothing at all, what about the judgments about the future?" His answer is that even though future is nothing the judgments about the future are, nevertheless, significant. In bearing out this conclusion, he makes a distinction between the grammatical subject and the logical subject of a proposition. The grammatical subject may be non-existent and yet there is an intelligible meaning in the judgment. This meaning consists in the characteristic or set of characteristics of the grammatical subject, if it were to exist. His emphasis is that there is no incompatibility between the 'belief' in the existence of things and judgments about them. In the judgment 'To-morrow will be wet', the non-existence of to-morrow is not incompatible with the fact that judgment is about something, viz., the characteristic of wetness. But apart from this similarity, there is a point of difference between the judgments about non-existent things and judgments about future. Judgments about non-existent things refer at least to a 'negative fact' about the world, but judgments about future do not refer to any fact at all. They are 'neither true nor false at the time they are made'. They will be true or false when to-morrow will be a fact.

But if the judgment about the future do not refer to anything, what about the verifiability of some and the unverifiability of others? Broad's answer is that it is one thing to say at present that "to-morrow will be wet" refers to nothing at this time, and quite another, to say that if to-morrow comes and if part of to-morrow's situation is characterised by wetness, it will be verified. There is no incompatibility between these two statements. Both may be true without incurring contradiction. There is no inconsistency between the statement that we can know *what kind of fact* would verify a judgment about the future and the statement that such judgments do not refer to any *fact* when made.

Lastly, the question is : " What precisely do these judgments assert about the characteristics concerned ? " Broad informs us that they assert, firstly, the fact of becoming and secondly, that part of what will become, will be characterised by the characteristic which the judgment is about. " They (judgments) assert that the sum-total of existence in question will characterise part of what will become."⁷

His conclusion in general is that though future is non-existent judgments about future are significant. They are neither true nor false at the time they are made, but purport to say that the sum-total of existence will increase and part of it will be characterised by the characteristic referred to by the judgment.

We must critically consider his contention that the judgments about future are neither true nor false at the time they are made. Suppose I build a house to-day and judge about its state to-morrow : ' The house will stand to-morrow.' Now it cannot be said about this judgment that it is neither true nor false at the time it is made. It is, on the contrary, *either* true or false at the time. If I take another judgment ' Something will happen to the house to-morrow ' is definitely true at the time. For even if it fails that will be something happening to it. And in the ordinary course something, may be very insignificant, is sure to happen to it. So the proposition that the judgments about the future are neither true nor false does not stand careful scrutiny. They are either true or false in some cases and definitely true in others.

We come to the same result in another way. Is future determined ? It must be, as it is unthinkable that it is merely a chance occurrence. If the future is determined, it can be only determined by past or present. Again if past or present determines future, future must have some determinate character, that is, it cannot be simply nothing. If the effect is nothing, the cause which determines it must be nothing. But cause is not nothing, even Dr. Broad does not hold that past or present is nothing. So if past intrinsically determines future, future must be something ; it cannot be simply nothing. This intrinsic determination involves the truth of judgments about the future at the time they are made. If a man dies childless, there would not be no event of the marriage of his grandson. Thus some judgments about future can be definitely declared to be true at that very time.⁸

We shall show by a *tu quoque* argument that Broad's position is untenable. ' Future is non-existent ' is itself a judgment about future. It is neither

⁷ *Loc. cit.*, p. 77.

⁸ Cf. McTaggart, *The Nature of Existence*, Vol. II, p. 26.

about the past nor about the present. It refers to the characteristic, namely, becoming and its part to be characterised by the characteristic in question. But here a difficulty arises : We have to arise two questions, firstly, what will become ? and secondly, what is the characteristic that will partly characterise what will become ? Now the answer to the first question is 'future', and to the second question 'non-existence'. But if the meaning of the judgment be true, the future is non-existent. And the characteristic by which it is characterised non-existence. It may be rejoined, to avoid this tautology that the future is not non-existence, but non-existent. But here it should be asked in return, "Is the future existent at the time?" It cannot be, *ex hypothesi*. Thus following in strict consistency all that Broad has said about the judgments about future and applying it to his thesis that future is non-existent we come to the conclusion that if the judgment is true, his contention that the judgments about future are neither true nor false at the time they are made must be given up ; if this judgment is false, he contradicts his own statement that the future is non-existent. Difficulty lies either way and no solution can be found on his hypothesis. It should be noted in passing that we cannot make this assertion that 'future is non-existent' at any time. Not in the past nor in the present for fear of tautology ; nor again in the future, for fear of contradiction, as then it is (will be) existent. Or, just in another way, the future when it comes, is present and no longer future, and in that case, it would not be correct to say simply that future is non-existent, but we shall have to modify it to the form—"Future for the present moment is non-existent." And future for the present is a contradiction in terms, it is not future pure and simple. Thus we get rather a surprising result that the judgment future is non-existent cannot be made at any time.

A very interesting and engaging problem is bequeathed by Broad's treatment of the subject of time. What is the essential character of the future ? In other words, what is the metaphysical status of the events in the future ? According to Broad future is non-existent. According to McTaggart the future is already, only it is distant and it has to come near, so to say. But events in the future exist and probably have the same status as the events in the present or in the past. In his opinion, any event in the future, for example, the death of Queen Anne is distant but is already in the series of the earlier and the later. In recent times Spengler has promulgated a theory which is described as "a tragic but fascinating metaphysical theory". According to this theory, the future is conceived by Spengler as a zoological perspective of consciousness. He writes: "The soul as it is felt is designated as the possible and the world as the actual ; then life is

the form in which the actualising of the possible is accomplished. With respect to the property of direction, the possible is called the future, and the actualised the past."⁹ It is pointed out that the future cannot be known by pure reason. It is on the contrary lived and experienced. The implied futurity of time is essentially "direction, impulse, spontaneity or movement-quality, that is, that which is peculiarly organic, and living. Future is described as 'Destiny that we live and are. Our span of life and that of culture is a fated-coursed time, the infinitesimal growth of the soul passing through adolescence, maturity and decay, to its self-fulfilment.' Future is, in other words, 'organic dynamic experience.' It possesses a vertical tendency, consists of a Faustian striving upward until the process of its inward form has attained its organic completion. The unforeseeability of the future, that which men longingly and anxiously live forward to, drives them forward to an end which they really do not know, but which they live out. It is thus an organic necessity of life itself."¹⁰

In spite of the literary elegance of this description of the future, we cannot help remarking that Spengler has hardly touched the real metaphysical issue. His theory is tragic, undoubtedly, but it is not metaphysical. It, however, contains one valuable suggestion, that future is a direction. It is a direction for becoming or existence but not existence. And direction, it will be observed, possesses a being which is intermediate between full-fledged realisation on the one hand, and bare unrealised and unrealisable possibility on the other. Such, in our opinion, is the metaphysical status of the events in the future. Future is realisable existence. It is not simply non-existent, the utterly non-existent of the type of the square circle, or the hare's horn. Nor, on the other hand, it is existent in the unalterable sense which is the character of the present and the past. It is just midway between the two. It is the realisable existent. We may say that future subsists.

A clue to the character of future is supplied by the nature of the knowledge of future events. Valuable data are being brought forward by some investigators who are endeavouring to show that future is as much an object of seeing as the present. They claim that there is no metaphysically valid distinction between seeing and foreseeing as future events are also seen in prognostic dreams and other experiences of mystic character.¹¹ It will be recalled that Yogi Partyaksha recognised in Indian Philosophy is of the same evidential value as the 'seeing' of the future.

⁹ *The Decline of the West*, p. 54.

¹⁰ Cf. Spengler's *Theory of Future*, Monist, April 1929.

¹¹ Dunne, *An Experiment with Time*; Osty: *Supernatural Powers of Man*.

The results of the experiments of these enthusiasts cannot as yet be accepted as unimpeachable metaphysical evidence. We think that at best it will be proved that the range of mental vision is not so much narrowed down as we ordinarily think. It will, so to say, extend the bounds of the present but it will not do away with the essential distinction between the present and the future.

Another point to be noted as regards the knowledge of the future is that there is no complete or absolute want of knowledge of the future, only knowledge of the future lacks in complete certainty. Theoretically speaking, complete knowledge of the present would give absolutely certain knowledge about the future. The reason for this is that future is the outcome of the tendencies in the present and if these tendencies are known fully there should be no difficulty in grasping the events of the future. The difficulty in getting the complete knowledge of the present is practical and not theoretical. This point may well be illustrated by the fact of the prediction of the eclipse. Now, the prediction of the eclipse is nothing short of a miracle to common sense, but it is an ordinary piece of knowledge which is the result of mathematical calculation from the standpoint of science. The fact of successful prediction of future events makes it clear that those events have an existence which simply awaits to be verified. Broad warns us against the assumption that the future is really something that has "future existence" as the past really is something that has "past existence". He contends that we have immediate, and not merely inferential, knowledge of some past events by direct memory, but such direct knowledge of future is not possible. This, according to him, is a cogent argument to prove that future does not exist as past. If the future exists and be just that part of existence which succeeds the present, it is difficult to see why a present act of cognition might not know an event which is later than itself. Why should we not have a direct anticipation of some future events just as we have direct memory of some past ones, if the future were of the same general nature as the past, and simply differed from it by standing in the converse temporal relation to be present? Still more, all claims to the direct knowledge of future should be regarded as so wildly paradoxical?¹²

We urge against this argument, that, if memory has any claim to be regarded as 'direct', there is no reason why we should refuse that title to anticipation. Anticipation may as well be taken as 'direct'. It is simply arbitrary to understand memory of the past as direct and anticipation of the future as not direct. I know myself of to-morrow with as much workable

¹² *Scientific Thought*, p. 78.

certainty as I know myself of yesterday ; and it seems but an accident that I do not possess immediate awareness of my existence of to-morrow, as it is an accident that I do not see what happens on the yonder side of the wall. Theoretically speaking the anticipation of to-morrow may be just as vivid as the memory of yesterday may be fresh. Thus approaching the problem from the side of knowledge we find that future exists only, it has got to be verified. This view is a sort of *via media* between the view of McTaggart on the one hand and that of Broad on the other.

Our argument for the unreality of time is as follows : Past, present and future are essential for time. To be in time at all is to be either past, or present or future. That which is neither past, nor present, nor future cannot be thought of as having temporal character. Now out of these distinctions, past and future depend, in a very valid sense, on the present. It is the present that separates past from the future. The present marks off past from future. In this sense the present seems to be primary and fundamental and the past and the future are merely secondary and derivative. Thus what appear, at first sight, as co-ordinate distinctions, turn out on analysis to be unequal in value. The present becomes the root from which the past and the future shoot forth, so to say, as branches. In this sense Eddington's "Time's arrow" has to be substituted by "Time's two arrows" darting in two opposite directions. The present is the most fundamental out of the three distinctions the past, the present and the future. Hence we shall now concern ourselves particularly with the present.

The present is what we are immediately aware of whereas the past is what has been the object of our immediate awareness, and the future is what will be the object of our immediate awareness. Thus the present being a line of demarcation between the past and the future, must be the smallest and irreducible moment of time. But as a matter of fact the present does not consist of one moment only but stretches over more moments than one. It is what is called a 'specious present'. And this is necessary, because a moment from the future must be felt as lapsing into the past. Unless immediate awareness spans three moments one future, one present and one past, there cannot be what we call 'specious present'. Thus the concept of the present is found to be self-contradictory. Now it must be, at the same time, or rather by an equally pressing necessity, both momentary and specious, both without, and with duration. Theoretically it is a limiting concept and as such cannot have any duration ; it must be 'like a sword's edge and not like a saddle-back'. But if it be so, it cannot be recognised as present as what is present must be contrasted with future on the one hand and with past on the other. If, however, this is to be possible the present cannot be

one without duration, but it must cover a smallest portion at least of the future and one of the past. It will thus be seen that the present must be without duration but at the same time it cannot be so. It is, hence, self contradictory or in other words, torn asunder by internal discrepancy. And whatever is self-contradictory is unreal. The present, therefore, is unreal. If the present is unreal, the past and the future also become unreal, as we have seen that they depend upon the present for their very being. The past, present and future being unreal, time is unreal, as these distinctions are essential to time.

The argument as sketched above, takes self-contradictoriness as the criterion of unreality, and absence of contradiction that of reality. Another argument may be advanced to show the unreality of time. Time is inseparably connected with change. To be temporal is to be subject to succession. Now we must see whether succession is the ultimate category of experience. *Prima facie* it appears that change, or succession is ultimate and universal. There is nothing that is free from change. Everything seems to be involved in an unceasing flux. Glance at the starry heavens above, or look to the variegated world around or introspect into the realm of the mind, and it will be found that there is nothing that stands static, everything is inexorably dynamic. "The passage of nature is a fundamental and general fact as it is manifested equally as a movement in the world without and also as a movement in the world within. In passage we reach a conception of nature with ultimate metaphysical reality. The quality of passage in durations is a particular exhibition in nature of quality which extends beyond nature. For example, passage is a quality not only of nature, which is a thing known but also of sense-awareness which is the procedure of knowing."¹⁸

This view is, in our opinion, erroneous, as it omits to take account of a fact which is the most vital presupposition of experience. Succession, or passage, or process, must be experienced as succession, or passage or process. This seems to us undeniable. For a succession which is not experienced as succession cannot be legitimately designated by that term. We speak of the successive stages of a process, because we experience them as successive. It is clear from this that a succession must be experienced as such, if it is to be a genuine succession, and not a spurious one. Moreover, it is a requisite condition of experience of succession that what experiences succession must not itself, be successive. Failure to satisfy this condition would result in an impossibility of experience of a succession. For, if the experiencer

¹⁸ *The Concept of Nature*, p. 53.

would be subject to succession, a particular state of experiencer would apprehend only a particular corresponding state of succession. If, however, at every time only a particular state be apprehended, the resulting experience would give only an unorganised medley of discrete atomic states, and it would never amount to a synthetic consciousness of a process, in the strict sense of the term. In order to be able to hold together all the stages of the process the experiencer must endure. A stream of subjective states would hardly yield that organisation and unity of experience which is its very life and being. One thing, then, is quite certain that the experiencer of succession must not itself be successive. But if the experiencer is above succession, the implication of this is unavoidable, namely, it is not in time, but somehow above time. The experiencer of succession must transcend the category of time, as it has been seen that whatever is in time is successive. In other words the self, or the vital presupposition of experience, must be timeless. Time is not ultimate in experience as change is not ultimate. In this sense also time is unreal.

The unreality of time carries with it an inevitable corollary that progress is unreal. When we have come to the conclusion that time is not real, we cannot, and do not shirk its logical consequence that progress is not real. This position seems surprising, but we do not mean to deny movement in history, or advance in scientific knowledge or even the onward march of culture and civilisation in general. What we deny is its reality on logical grounds. Movements and oscillations there will always be. But it is still a question whether there is progress on the whole. When we look from the point of view of a particular epoch, say the epoch in which we live, there appears to be an onward movement. But when the acme of progress in a particular era is reached it may be that the acme marks a lower, at the best an equal, height reached by a previous epoch. The course of culture is cyclic. Civilisations rise and fall. All this undulatory movement of history is but a shadowy show sustained by a spiritual principle which is its unchanging substratum. Stand on the seashore and watch the waves rolling forwards and backwards and you cannot help remarking: "Movement there is here undoubtedly, but progress in the ocean as its condition, there is none". Even so in all human affairs an unceasing restlessness is observable. But to the spiritual principle which is its basis and foundation the feverish activity is an unsubstantial shadow, a sheer appearance and a meaningless illusion.

THE RISE OF THE HOYSALAS—II*

BY SANT LAL KATARE, EsQ., M.A.

The Hoysala Ereyāṅga.—The foundation of the Hoysala Empire was laid by Saṭa Nr̥pakāma in about 1000 A.D. He was followed by his son Vinayāditya in about 1040 A.D., and he had a very long reign of nearly sixty years.

The Hoysala Vinayāditya had a son named Ereyāṅga begotten on the queen Keleyabbarasi. Ereyāṅga played an important part in the history of the Hoysalas and was associated in the administration¹ for about forty years from 1062 A.D. to 1100 A.D. An inscription records that the son-in-law of Ereyāṅga made a grant in Śaka 989 = 1067 A.D.² This inscription indicates that Ereyāṅga was born in about 1035 A.D. As stated elsewhere Vinayāditya reigned till 1100 A.D.³ and his son Ereyāṅga never ascended the throne. He adopted the *biruda* Tribhuvanamalla like his father. He married Mahādevī, daughter of Karkkala-mārāya, who gave his sister in marriage to the Pāndya Tējarāya.⁴ Ereyāṅga was the disciple of the *Gurū* Gopanandi Pañditadeva of the Kondakundanāvaya of the Śrī-mūla-saṅgha and granted some villages to him in 1094 A.D.⁵

The Hoysalas had accepted the suzerainty of the Cālukyas during the reign of the Cālukya Jayasimha (1015–1042 A.D.). Someśvara I (1042–1068 A.D.) was succeeded by his eldest son Someśvara II in 1068 A.D. He banished his younger brother Vikramāditya (VI) from the capital. This marks the beginning of the fratricidal war between the two brothers. The Hoysalas accepted Someśvara II as their overlord.

War with the Cōlas.—The accession of the Cālukya Someśvara II to the throne attracted the attention of his adversaries. The Cōla Vira-Rājendra had returned from Vengi, where he had been leading a military expedition. He heard the news when he was celebrating his victory at Gaṅgākonḍa Sołapuram.⁶ It is not unlikely that he might have received some vague

* Continued from *N.U.J.*, No. 4, p. 25.

¹ *E.C.*, Vol. VI, Kd. No. 161.

² *Ibid.*, Vol. IX, Intro. p. 31.

³ *N.U.J.*, No. 4, p. 25.

⁴ *E.C.*, Vol. V, Ak. No. 102 a.

⁵ *Ibid.*, Cn. No. 148.

⁶ Author's *History of the Deccan* (to be published), Chapter V.

intelligence about the impending civil war between the two brothers in the Cālukya kingdom. He immediately made up his mind to act. This was a fine opportunity to strike a blow at the Cālukyas, and the Cōlas lost no time in invading the Cālukya territory. The Belagāmi inscription records that immediately after his accession Someśvara heard that the Cōla king was advancing with his army declaring “a new reign (a kingdom) fit for a hero ; this is the time to invade it”.⁷ The Cōlas burnt Kampili in the Cālukya territory and erected a pillar of victory at Kaṇḍikal, but very soon they were faced by the Cālukya cavalry, which drove the invaders away.⁸ The Cālukya force was helped by the Hoysala Ereyanga. An inscription dated 1100 A.D. states that “the Colika king, he (Ereyanga) caused to wear leaves”.⁹ Another inscription dated 1159 A.D. records that Ereyanga “put to flight the fierce Cōla army eager for war”.¹⁰ It seems very likely that Vikramāditya also helped his brother in driving out the Cōlas from the Cālukya territory.¹¹ The fratricidal war does not seem to have broken out at this time.

War with the Paramāras.—Matters could not be postponed for a long time. Vikramāditya, soon after the defeat of the Cōlas, left the Cālukya capital and went away to the south. Here he was joined by some of the Cālukyan feudatories.

The Hoysala principality lay in the southern part of the Cālukya dominion. They remained loyal to the Cālukya Someśvara II. Vikramāditya formed a marriage alliance with the Cōla Vira-Rajendra. He was also thinking of making an alliance with the Paramāra Jayasimha of Mālava. Jayasimha was restored to the throne of Dhāra by Vikramāditya and the latter could naturally expect help and sympathy of the former in his dark days. Someśvara could not tolerate this attitude of the Paramāra king. Vikramaditya was at that time busy in settling the affairs of the Cōla kingdom as a civil war broke out there after the death of the Cōla Vira-Rājendra in 1070 A.D. Someśvara selected his general Ereyāṅga to lead an expedition into Mālava. Ereyāṅga was accompanied by his son Udayāditya. The Hoysala general achieved remarkable success in his expedition. He captured and burnt Dhāra, the capital of Mālava. After the fall of the capital the whole of the kingdom of Mālava was overrun by the Hoysala general. An inscription dated 1100 A.D. records that “As the mandapa was consumed

⁷ E.C., Vol. VIII, Sk. No. 136.

⁸ *Ibid.*

⁹ *Ibid.*, Vol. V, Ak. No. 102 a.

¹⁰ *Ibid.*, Vol. II, No. 349.

¹¹ Author's *History of the Deccan* (to be published), Chapter V.

in the burning of the Khāṇḍava (forest), so the fire of the Hoysaḷa king's glory sprang up in the Vindhya mountain and seized the city Udhapuram (?) of his enemies".¹² Dr. Ganguly has identified the city of Udhapuram with modern Udayapura in the Gwalior State, which was then included in the Paramāra dominions.¹³ Another inscription dated 1112 A.D. records that Eṣeyaṅga "trampling down the Mālava army, did not spare Dhāra, but burnt and scattered it."¹⁴ An inscription dated 1159 A.D. states that "he burnt Dhāra, the capital of Mālava".¹⁵ Another dated 1161 A.D. records about him that "The Mālava king's hill-fort, which was too strong for the Cālukyas, he without effort plundered, while Cālukya was looking on"¹⁶ and one dated 1170 A.D. states that "Eṣeyaṅga swallowed Dhāra, which was brought to great fame by king Bhoja as if the preliminary sip (*Āpośana*) before devouring the whole earth in his expedition to the North."¹⁷ Another dated 1164 A.D. records about Eṣeyaṅga as follows : "The great Dhāra, the chief place of the Mālava kingdom, he subdued with his army, and conferring great victory on (his) emperor established the standard of his fame in the North."¹⁸ Yet another dated 1117 A.D. gives a vivid description of this expedition. It records, "Eṣeyaṅga Dhāra, the chief city of the powerful Mālava kings, which Bhoja by victory over hostile kings had enlarged and made famous, he took as if the preliminary sip (*Āpośana*) before feasting on the world of his enemies, so that the smoke blinded the eyes of the regents at the point of the compass, caused the white regent elephants to appear black, and filled the whole sky with a dense cloud. Poysaḷa burnt all Bhoja's principal fortresses. The dust raised by his army, coming down on the hills mingled with the clouds, and as he marched on burning all he encountered, it was as if he was unfurling a banner of smoke from Bhoja's destruction, such was the effect of Poysaḷa's victorious expedition."¹⁹

Invasion on Cakrakoṭya.—In these inscriptions Eṣeyaṅga is also given credit for destroying Cakrakoṭya.²⁰ It was the capital of the Nāgavamshi kings. Cakrakoṭya is identified with modern Cakrakoṭa in the Bastar State of the Central Provinces and Berar. In the eleventh century A.D. the capital

¹² E.C., Vol. V, Ak. No. 102 a.

¹³ *History of the Paramāra Dynasty*, p. 129.

¹⁴ E.C., Vol. VII, Sk. No. 64, Trans. p. 24.

¹⁵ *Ibid.*, Vol. II, No. 349.

¹⁶ *Ibid.*, Vol. V, Ak. No. 117.

¹⁷ *Ibid.*, Hn. No. 53.

¹⁸ *Ibid.*, Vol. IV, Ng. No. 30.

¹⁹ *Ibid.*, Vol. V, Bl. No. 58.

²⁰ *Ibid.*, Vol. II, p. 349.

of the Nāgavamśi kings was the target of attack by the Cōlas, the Cālukyas and the Paramāras. Eṣeyāṅga invaded Cakrakotya probably at the command of his Emperor. It is very difficult to fix up a precise date for this expedition.

Overthrow of the Cālukya Someśvara II.—Vikramāditya VI, after his banishment from the court by Someśvara II, retired to the south. Some of the southern feudatory chieftains flocked to his banner. As stated above, the Hoysalas remained loyal to Someśvara II in the beginning of his reign, but after a couple of years they also joined the rebel brother of their king. Vikramāditya had formed a marriage alliance with the Cōlas and was waiting for an opportunity to overthrow his brother. First he declared independence in the southern part of the Cālukya dominions,²¹ and with the help of the feudatories Someśvara II was overthrown in 1076 A.D. The Hoysala Eṣeyāṅga played a conspicuous part in this fratricidal war and helped his new sovereign Vikramāditya in usurping the Cālukya throne. An inscription records that “At the Emperor’s bidding, he caused the elder brother to sheathe his sword”,²² and further it states that “turning back Bhuvanaikamalla so that the earth was terrified, he with great rejoicing seized his kingdom and in his own body gave it to Tribhuvanamalla.”²³ Bhuvanaikamalla mentioned in the inscription was a *biruda* of Someśvara II.

The names of the two queens of Eṣeyāṅga are known from the inscriptions. The name of one was Mahādevī, a *Lakṣmī* on earth, daughter of Karkkala-mārāya. The other was Ecaladevi. Three sons, Ballāla, Viṣṇuvardhana, and Udayāditya were born to Eṣeyāṅga from Ecaladevi.²⁴

The Hoysala Rebellion against the Cālukyas.—The Cālukya-Hoysala alliance was formed during the reign of the Hoysala Vinayāditya. In the alliance he had seen the best solution of the various difficulties before him. Since the conclusion of the alliance peaceful relations between the Cālukyas and the Hoysalas were maintained. Vinayāditya had placed the services of his son Eṣeyāṅga at the disposal of his sovereign. The Hoysalas had some other objective than the mere solution of their difficulties. They were in fact strengthening their position and trying to become independent. When the fratricidal war broke out, they utilised it to serve their own end. So long the alliance with the Cālukya Someśvara II was advantageous, Eṣeyāṅga was

²¹ Author’s *History of the Deccan* (to be published), Chapter V.

²² E.C., Vol. V, Sk. No. 102 a, p. 152.

²³ *Ibid.*, p. 153.

²⁴ *Ibid.*, Vol. II, Intr. p. 49, No. 349 ; Vol. V, Bl. No. 58.

fighting from the side of Someśvara II, but when it was found that Vikramāditya was becoming stronger and stronger and the days of Someśvara were numbered, true to their cause, Vinayāditya immediately changed sides. Vikramāditya was successful in overthrowing his brother Someśvara II in 1076 A.D. with the help of the Hoysalas and other feudatories. Vinayāditya and his son Ereyāṅga received their reward. They were appointed Governors of the Gaṅgavādi 96,000 division. The ambition of the Hoysalas was not satisfied with this only. They were in fact aspiring for independence. The fear of aggression from the Cōlas was considerably diminished as they were then engaged in a struggle with the Cālukya Vikramāditya VI in Vengi, hence the Hoysalas did not give much importance to their alliance with the Cālukyas. Vikramāditya was sufficiently advanced in age. He was trying to capture the province of Vengi. The Hoysalas naturally utilised this opportunity in making an attempt to assert their independence. They had already begun a local warfare against their neighbouring feudatory princes, the Pāṇḍyas and the Nolambas. Vinayāditya and Ereyāṅga had sufficiently strengthened their position and were ready to strike a blow. The three sons of Ereyāṅga were of great help to Vinayāditya. An inscription records that Viṣnuvardhana and Ballāla, "with their swords beating down without mercy, the pride of Pāṇḍyas, who in his pride withheld them, seized the wealth of his kingdom".²⁵ Having achieved these local advantages the Hoysalas rebelled against the Cālukyas. The rebellion was very threatening and Vikramāditya finding his resources insufficient, summoned his Paramāra ally Jagaddeva from Mālava. The combined Cālukya and Paramāra forces invaded the Hoysala principality and reached the capital Dvārasamudra. A bloody battle was fought between the two forces. Both the sides claimed victory and in the beginning it is really very difficult to say as to which side gained victory, but the fact that the Hoysalas remained feudatories of the Cālukyas even after this rebellion leads us to the conclusion that the former were certainly defeated. The Jainad stone inscription of Jagaddeva describing the details of the battle records that "in every home the weeping widows of his enemies, having seen in Dvārasamudra the peak-like heaps of the skulls of their lords, who came in contact with the pointed club-like tusks of his best elephants, increase with tears the acute pain in the heart of the chief of Malhara (Malhara-kṣonīśa)." ²⁶ The Malhara-kṣonīśa in fact here refers to the Hoysala king. The above statement would lead us to think that

²⁵ E.C., Vol. V, Ak. No. 58.

²⁶ E.J., Vol. XXII, p. 62; Dr. Ganguly tried to identify Malhara with Malabar, while Dr. N. P. Chakravarti thinks that Malhara-kṣonīśa seems to be the translation of the Kanarese epithet Maleparol gaṇḍa, a title assumed by the Hoysalas (*Ibid.*, XXII, p. 58, f.n. 5).

Jagaddeva inflicted a crushing defeat on the Hoysalas, but this is doubtful when the statement made in the Hoysala inscription is taken into account. An inscription dated Śaka 1023, Vikrama Samvatsara, Phālguṇa Suddha 5, Somavāra = Monday 4th February, 1101 A.D. records that Viṣṇuvardhana was a "Garuḍa to the great serpent Jagaddeva".²⁷ Jagaddeva mentioned in the above inscription is obviously identical with the Paramāra Jagaddeva of Mālva. Another inscription dated 1117 A.D. records that Viṣṇu and Ballāla "in Dvārasamudra defeated the army of Jagaddeva, painted the goddess of victory with the blood of his elephants for vermillion, and captured his treasury together with the central ornament of necklace."²⁸ These inscriptions clearly state that the battle took place at Dvārasamudra, but this does not seem to have been the only seat of the Hoysalas. From inscriptions it appears that Viṣṇuvardhana had another seat of Government at Vēlāpura, modern Belūr. There is much controversy among scholars about the identification of Jagaddeva. Some scholars tried to identify this Jagaddeva with the Santāra chieftain²⁹ of the same name, but the testimony of the Śravaṇa-Belgoḷa inscription clearly shows that Jagaddeva was the king of Mālva and was summoned by the Cālukya Vikramāditya VI to help him in suppressing the rebellion of the Hoysalas. The inscription records that "Viṣṇu powerful like Yama, striking with his hand, drank up all at once the rolling ocean of the army of the Mālava king, Jagaddeva and others sent by the emperor."³⁰ Another inscription dated 1196 A.D. records the same fact in the following words : "Ballāla drove in battle the force which came to attack him, so that the Mālava Emperor, Jagaddeva, whose proud elephant be made to scream out said 'welcome, horseman', to which he replied, 'I am not only a horseman, I am Vira-Ballāla,' and by his slaughter excited the astonishment of the world."³¹ Many other inscriptions of *later date* repeat the same fact.³²

The last known date of Vinayāditya is 1100 A.D. The earliest record which mentions this event is dated 1101 A.D.,³³ and it belongs to the reign of Viṣṇuvardhana. The last known date of Jagaddeva is 1094 A.D.³⁴ and

²⁷ E.C., Vol. V, Ak. No. 34.

²⁸ Ibid., Bl. No. 56.

²⁹ Rice, *Mysore and Coorg from Inscriptions*, p. 99.

³⁰ E.C., Vol. II, No. 349.

³¹ Ibid., Vol. VI, Tk. No. 45.

³² Ibid., Vol. IV, Ng. No. 30 ; Vol. V, Bl. No. 58 ; Hn. No. 116.

³³ Ibid., Vol. V, Ak. No. 34.

³⁴ E.I., Vol. XXII, p. 58.

this would naturally lead us to think that the Hoysala rebellion took place before 1094 A.D.

As the inscriptions reveal, the Hoysalas were not successful in their rebellion against their sovereign—the Cālukyas, and continued to govern as feudatories. But this rebellion amply demonstrated the fact that the Hoysalas were only waiting for a right opportunity when they would throw off the yoke of dependence. This time they failed, but *their power* was not finally crushed.

SWINBURNE—THE REPUBLICAN

BY BOMAN H. MEHTA, M.A. (CANTAB.)

SWINBURNE has had bad luck. By a strange irony of fate his admirers and his detractors have entered into an unholy alliance. In spite of their mutually violent antagonism, they have remained unanimous on one issue : to mislead the reading public regarding Swinburne's republican sympathies. Their methods have been different : the admirers regard it as an episode of a good school-boy gone astray; a lapse, however, pardonable, due to his all-round good record ; his detractors get a fresh opportunity to have a fling at him.

Such being the position it is necessary to resurrect the neglected republican poet of the first order. The reasons are not only 'literary' but 'political'. Literary, because if there is intellectual honesty, it will have to be admitted that a great many poems from "*Songs Before Sunrise*" will find a place in any critical anthology of poetry for their sheer Swinburnian sweep. At this stage the present writer is compelled to disagree with such an authority as Dr. Leavis whose judgments are, it may be asserted, the best in contemporary criticism¹ : Dr. Leavis pins down Swinburne where he is weakest. And in order to offset his remarks it is incumbent upon us to evoke the authority of the greatest living poet² who rightly assigns to Swinburne the merit of being a master of words. It is a commonplace to suggest that literary criticism is concerned with words, and if words don't make poetry, what else does ? But the purpose of this essay is to deal with the 'political' aspect of Swinburne's poetry, for, it has not been rationally and honestly dealt with yet ; and also because in the present world situation, if a student of politics wants to draw inspiration from literature he must go to Swinburne. In this world of limping democracy where the last vestiges of human decency can scarcely be seen, where liberty is engaged in a titanic struggle, where men have fallen so low in stupidity as to brag and proclaim, "we spit on freedom"³

¹ *Revaluation*, by F. R. Leavis : "Swinburne, too, depends for his effects upon a suspension, in the reader, of the critical intelligence," p. 238.

² T. S. Eliot : "He (Dryden) bears a curious antithetical resemblance to Swinburne. Swinburne was also a master of words, but Swinburne's words are all suggestions and no denotation; if they suggest nothing it is because they suggest too much. Dryden's words on the other hand, are precise, they state immensely but their suggestiveness is often nothing", p. 300, c.f. "Selected Essays".

³ "... *Germany Puts The Clock Back*," by Mowrer, p. 216 (Penguin).

and where the relics of barbarism are terrifyingly raising their heads it remains for those, who watch with dismay and helplessness the forces of disorder, to stand at bay and register an intellectual protest. Explicitly then, the task is to bring into relief that important work of Swinburne⁴ by focussing it against a background of contemporary conditions. To those who share such convictions the "*Songs Before Sunrise*" will offer both a stimulus to carry on their struggle and also provide a fresh faith and hope in the ideals for which the shedding of human blood is not enough.

Opinion regarding Swinburne's growing faith in republicanism has not yet crystallised. Whether it was merely an ill-digested set of Mazzinian formulæ paraphrased into verse, or whether it was an inherent quality in the only honest and outspoken poet of the Victorian Age is irrelevant. And it is also immaterial to discuss whether the influence of Mazzini on Swinburne was due to the 'unsuspected collusion' between Lord Carlisle, Jowett and others who met to consider what could be done "with and for Algernon"; or whether by accident Swinburne met Mazzini and responded to his appeal by publishing the "*Songs Before Sunrise*". That they were written for a specific purpose is enough, that they are the product of the personal encouragement from Mazzini is indisputable, that they form an organic mental development in Swinburne's outlook in spite of Harold Nicolson's conflicting contention⁵ will be illustrated—the rest may be relegated to the frivolities of literary gossip.

At home, at Eton and at Oxford and in his first publications, Swinburne had revolted against the cramping limitations of convention and tradition, particularly those of his age. He yearned to be free, he could never succumb to the Victorian formula of compromise. But in the early poems this attempt at emancipation was purely psychological and personal. His sensitive nature could never conform to the Victorian code which was nothing but a cloak for prudishness. He published the "*Poems and Ballads*," First Series, and the result was that it shocked Victorian tastes and disturbed the contemporary priggish equilibrium. Since then the campaign of protests, disgust and lies began in the name of morality and 'discipline' which has not yet abated. It is not the writer's purpose to deal with it except as an aside to refer to the logical development of the spirit of revolt which was personal

⁴ "*Songs Before Sunrise*."

⁵ "Swinburne," by Nicolson: (A) "Swinburne's emotional receptivity began to ossify in 1857, i.e., in his 21st year", p. 9; (B) "The mutinous moods of his last year at Eton; the hysterical outbursts at Balliol; his early manhood was but a constant defiance of circumstances", p. 15. The derogatory epithets are a product of Nicolson's embryonic fascist proclivities. B. H. M.

in origin and which matured under the influence of Mazzini into a disinterested social and political revolt.

In March 1867 Mazzini by way of acknowledging the receipt of "Atlanta" wrote to Swinburne as follows :—

" Whilst the immense heroic Titanic battle is fought . . . between Right and Wrong, Freedom and Tyranny, Truth and Lie, God and the Devil—with a new conception of Life, a new Religious Synthesis, a new European World struggling to emerge from the graves of Rome, Athens, Byzantium and Warsaw kept back by a few crowned unbelievers and a handful of hired soldiers—the poet ought to be the apostle of a crusade, his word the watchword of the fighting nations and the dirge of the oppressors. Don't lull us to sleep with songs of egotistical love and idolatry of physical beauty ; shake us, reproach, encourage, insult, brand the cowards, hail the martyrs, tell us all that we have a great Duty to fulfil, and that, before it is fulfilled, Love is an undeserved blessing, Happiness a blasphemy, belief in God a Lie. Give us a series of 'Lyrics for the Crusade'. Have not our praise but our blessing. You can if you choose."

In order to accelerate the movement for emancipation Mazzini invoked the Muses, the medium being Swinburne. He readily responded to the appeal, though not without hesitation, and the process culminated in the publication of "*The Songs Before Sunrise*". Obviously it had little effect on the immediate course of events, but for cumulative propaganda effect, it was latently enormous. He took up the task in spite of the æsthetic conflict in his mind during the early stages :—

" All Mazzini wants is that I should dedicate and consecrate my writing power to do good and serve others exclusively ; which I can't. When I can do, I do. Witness my last book."⁶ However Mazzini was gradually able to overcome the obstacles in the evolution of Swinburne's republican outlook and made him feel that there was a cause which demanded unflinching support. The result was that Swinburne gave up the composition of his æsthetic novel "*Lesbia Brandon*" ; nothing could have pleased Mazzini better for he had said :—"I wish very much that he would write something . . . giving up the absurd immoral French art for art's sake system." For the next three years Swinburne devoted himself entirely to political and anti-religious verse.

There is a mistaken belief, shared both by his admirers and detractors, that Swinburne's songs of liberty in the abstract are good, but that and those which have a direct relation on the contemporary incidents of the time in Italy, are disappointing. One of his great admirers, the late Sir Edmund Gosse⁷ contended that in them the "apparent causelessness of the emotion,

⁶ Swinburne's Letter to his mother, dated 7th May 1867.

⁷ "Life of Swinburne."

and the vain violence as of a whirlwind in a vacuum, add to our difficulty in placing ourselves in a sensitive relation with a noble body of poetry." To say that the "*Songs Before Sunrise*" exhibit a 'causelessness of emotion' is to be ignorant of the Italian history of the period in which Mazzini had played an important part; this period had provided the material for Swinburne's poetry as is clearly indicated in the following passage from "*Siena*":—

" Me consecrated, if I might,
To praise thee, or to love at least,
O mother of all men's dear delight,
Thou madest a choral-soul boy-priest,
Before my lips had leave to sing,
Or my hands hardly strength to cling
About the intolerable tree
Whereto they had nailed my heart and thee
And said, ' let be '."

As George Lafourcade⁸ maintains: "However, if the reader is to understand these poems he should be aware that Swinburne's views on European affairs between 1867 to 1870 (not before or after those dates) form a coherent whole; that they do not represent the disconnected ravings of a fevered brain, but that they were shared rightly or wrongly by a group of thinkers and patriots."

Further, if we were to accept the latter part of Gosse's statement, viz., 'the vain violence as of a whirlwind in a vacuum,' we should betray an incapacity which may be described as innocent. The fact is, that it is not merely an innocent incapacity to be sensitively aware of Swinburne's 'violence' for it must be emphasised that both the pro- and the anti-Swinburnians are subject to the same incapacity, which makes one suspicious. We must look for and investigate into the causes which have led to such strange identity of views in the opposing camps.

On analysis it is found that the positive concepts of Swinburne's republicanism were based on a reversal of current values. Acceptance of such concepts would have disastrously affected the status of critics, as members of comfortable society. Hence on the problem of fundamentals they *identified themselves* by either damning or suppressing the positive Swinburnian values. Taking at random one of the typical Swinburnian songs, "*Before a Crucifix*" we find his anti-Christian outburst is an anathema to the critics. Christianity had been an admirable weapon in the hands of the ruling classes for political purposes. An appeal to religion had been the easiest way to fog the issues. The European nations whether at war or at peace claimed to have God on

⁸ "Swinburne." The most admirable and authoritative biography of the poet.

their side and every action fair or foul was perpetrated in His Name. Swinburne saw through this fraud and unmasked it. How far have the masses benefited by their acceptance of Christianity, the gain, according to him, is negative :—

“ Lean limbs that shew the labouring bones
And ghastly mouth that gapes and groans.”

On the other hand Swinburne exhibits with terrifying honesty and accuracy how the sufferings of Christ have been exploited by the ruling and the priestly classes for their sordid gains. In stanzas of translucent limpidity and full of despair Swinburne catalogues alternately the sordid gains of the upper section of the society and the miseries of the Saviour :—

“ The blinding buffets on thine head
On their crowned heads confirm the crown :
Thy scourging dyes their raiment red,
And with thy bands they fasten down
For burial in the blood-bought field
The nations by thy stripes unhealed.”

Such a realisation poetically places Swinburne among the major poets and as a republican among its great apostles. To enforce his judgment he says :—

“ With iron for thy linen bands
And unclean-cloth for winding-sheet
They bind the people's nail-pierced hands.”

The result of such a persecution leaves them without a haven of refuge, a position not different from those of the defenceless Jews in Central Europe to-day, at home nowhere, repelled everywhere :—

“ Earth is not theirs, that they should sleep ”
except for the priests who ‘ thy blood . . . make poison of ’

or again :—

“ And mouldering now and hoar with moss
Between us and the sunlight swings
The phantom of a Christless cross
Shadowing the sheltered heads of kings
And making with its moving shade
The souls of harmless men afraid.”

This is not an attack on God, nor is there any evidence of atheism, but is levelled against those who profiteer at His expense. It reveals in all nakedness the dangers of doctrinal worship which has politically always sided with those in power. Hence such an array of facts was dangerous in the eyes of the critics, and if they raised their voice, it was only with the desire to distort and confuse the reading public by branding such poems as blasphemous. And

the student of Swinburne is surprised to find that there is not a single critical work on Swinburne in English which has honestly dealt with this problem. There is a conspiracy both of silence and detraction. It will be noticed that the lines quoted above derive their strength from the plaintive simplicity of the tone. And it is this which places them among major poetry; but Swinburne was not content to remain in this position ; he took the logical step of driving his conclusions to the final end. The "*Hymn of Man*" was written with the specific purpose to illustrate concretely the influence of the papacy and also to blast it. In 1869 the Pope had called an Oecumenical Council to enforce the acceptance of the dogma of infallibility and to condemn the liberal doctrines of the age. Swinburne gave his answer in the "*Hymn of Man*". In the "*Halt Before Rome*", the Pope was described as one :—

“ Who had claws as a vulture
Plumage and beaks as a dove.”

The "*Hymn of Man*" is directed against this 'vulture' in the 'plumage' of the 'dove'. It is fierce in its destructive tone, and exulting in the greatness of Man. Moreover, it is not 'a whirlwind in a vacuum' but in its declaration it is complementary to the letter sent by himself and Rosetti to the anti-catholic council held in the same year at Naples. This letter was published for the first time by Lafourcade⁹ in his biography of the poet :—

“ The Liberty we believe in is one and indivisible ; without free thought there can be no free life ; that democracy of the spirit without which the body, personal or social, can enjoy but a false freedom, must, by the very law of its being, confront a man-made theocracy to destroy it. Ideal or actual, the Church or priests, and the Republic are natural and internecine enemies.”

It will now appear that Swinburne's anti-religious attitude is not directed against the pesonal beliefs of an individual but against mass forms of worship which ultimately take political shape, we, in India, know it too well to our cost. For instance, the elementary principle of equality is incompatible with the devout attitude of a catholic who recognises the ultimate authority in the Pope which, translated into politics, becomes the menacing 'führer' principle. Swinburne's attack was meant to dislodge the papal hierarchy in a republic.

The "*Hymn of Man*" ends with the declaration :—' Glory to Man in the highest for Man is the Master of things.' And it is Man who, because of his inability to explain the origin of things, had created the myth, God ; this myth was meant to provide security and to serve as an emotional panacea

⁹ " *Swinburne*," p. 173.

against odds. But the creation of it, due to fear and ignorance, led him into a *cul-de-sac* :—

“ we say the spirit is one
 That moved on the dark to create out of the darkness the stars and the sun.
 Before the growth was the grower, and the seed ere the plant was sown ;
 But what was the seed of the sower ? and the grain of him, whence it was
 grown ?
 Foot after foot ye go back and travail and make yourselves mad
 Blind feet that feel for the track when highway is none to be had.”

This myth has not benefited humanity except :—

“ The herds of kings and their hosts and the flock of the high priests bow
 To a master whose face is a ghost’s ; O thou that wast God, is it thou ?”

For the rest it is a betrayal :—

“ By the children that asked at the throne of the priests that were fat with
 thine hire
 For bread, and thou gavest stone ; for light and thou madest them fire.”

The “ *Hymn of Man* ” is the last poem in the “ *Songs* ” in which Swinburne deals with the problem of liberty with direct reference to Italian unity. But that does not mean that in poems like “ *Tiresias* ” and “ *Hertha* ” his approach is “ abstract ”. Let Swinburne speak for himself and dispel all doubts on the problem :—

“ I am writing a poem on Tiresias at the grave of Antigone the living buried woman representing liberty in the abstract (or more especially as incarnate in Italy, but I always identify the two, as it were, in this book) during the years while, the ‘ Earth cried, where art thou ? ’ ”

The fact that the poem assumes allegorical form does not imply that it is divorced from the actual forces of struggle in Italy, in which the poet had a direct interest. But what have the critics done—they have utilised the opportunity to distort and justify their division of poems ‘ abstract ’ and ‘ real ’. It is the old trick which was responsible for converting Swift’s “ *Gulliver’s Travels* ” into a fable for children in the nursery. Such a master-stroke of chauvinism excels the irony of Swift in excellence. Swift’s “ *Gulliver’s Travels* ”, Byron’s “ *Age of Bronze* ” and “ *Don Juan* ”, and Swinburne’s “ *Songs Before Sunrise* ” have suffered from the same fraud and conspiracy.

When one turns to “ *Hertha* ”, he finds the critics unanimously acclaiming it as a great poem. It is so. Swinburne’s approach to the problem of liberty is more metaphysical and therefore requiring a greater degree of concentration and an intellectually subtle response which the average reader is usually devoid of. Hence its effect on him would be innocuous and

consequently could be 'safely' recommended to him. The poem begins with the enunciation of the doctrine of Mazzini :—

" Humanity is not an aggregation of individuals but a Collective Being Humanity is a man who lives and works for men. The best interpreter between man and God is Humanity."

Hertha, the name of a deity, represents for Swinburne the principle of growth. As Swinburne says, it is 'the vital principle of matter' in Earth which is active growing and spiritual, which demands emancipation, and for it the necessary destruction of the 'false gods' :—

" I am that which began
Out of me the years roll
Out of me God and man
I am equal and whole
God changes and man, and the form of them bodily : I am the soul "
.....
First life on my sources
First drifted and swam
Out of me the forces
That save it or damn ;

Out of me man and woman and wild beast and bird; before God. " Of all I have done, ", said Swinburne, " I rate ' Hertha ' highest as a single piece, finding in it the most of lyric force and music combined with the most condensed and clarified thought." The triumph of the poem lies in having made the scientific law of evolution into a spiritual necessity for it must not be forgotten that in the background of the poem are the Darwinian ideas of evolution giving it a logical coherence. They derive their strength from Hertha—the compulsion to live and grow and change :—

" Though sore be my burden
And more than ye know
And my growth have no guerdon
But only to grow
Yet I fail not of growing for lightnings above me or deathworms below."

To say now that his "*Songs*" can be divided into water-tight compartments—one consisting of purely vapid rhetorical ebullitions and the other full of energy and passion is to betray incomprehension of the foundations on which Swinburne was able to create his structure. The two types of poems must be read together—for they complement each other. In fact it would be difficult to understand the 'abstract' poems on the subject without a knowledge of those directly concerned with the Italian movement. For the 'Italian' poems supply the premises on which the conclusions are reached in the 'abstract' ones.

THE CONTROL OF POPULATION

BY DR. H. C. SETH, M.A., PH.D. (LONDON)

IN matters concerning birth regulation we can distinguish between the social and the individual interests. There is a likelihood of conflict of these two interests. Society generally takes a longer point of view. The defence of the territory and its fuller development are the important objects before it; while the individual is likely to look more to his own immediate comforts. It will always be in the interest of the society that its more intelligent, vigorous and healthy members should bring up comparatively larger families. But the financial burdens, inconveniences and the sacrifice of personal comforts, that the bringing up of a large family involves, may lead just these very persons to a contrary behaviour.¹ Even Malthus was aware of this danger. He observed, "There are some men, even in the highest rank, who are prevented from marrying by the idea of the expenses that they must retrench, and the fancied pleasures that they must deprive themselves of, on the supposition of having a family."² Similar considerations may permeate down to the lower orders of the society, and the greater the force with which the ideals of an upper class are followed by the lower classes the greater may be such restraints exercised even by them.

In modern times the burden of rearing up of young children amongst the poorer people has become greater with the prohibition of child-labour and the prolongation of the compulsory school-going age. Even amongst the middle classes the educational expenses of the children impose a serious burden on the family purse. Moreover the great fall in child mortality, which has resulted from the increase of medical knowledge and better sanitary conditions, has put the question of child-birth in an entirely new light for the parents. The Highland woman of Adam Smith's time who had "borne twenty children not to have two alive" perhaps eagerly looked forward to the birth of a new child to fill in the vacant cradle. An Indian woman may even to-day find all the dozen children, she may give birth to, disappear, as she even now lives in a land of small pox, cholera, plague, malaria and midwives, whose ignorance is only second to that of the savage witch doctor.

¹ Compare the views of Leonard Darwin : "Contraception is likely to be voluntarily adopted in inverse proportion to the needs of its use on racial grounds." Eugenic Reform.

² *Essay*, First Edition, p. 63.

Her maternal instinct smothered by the succession of infantile deaths tragically looks forward for its satisfaction to the birth of yet another child. The fall in child mortality is a recent phenomenon, and in earlier times high infant mortality itself kept population stationary or increasing at a very slow rate. Even mediæval Europe had "an. infant mortality double of that which prevailed in a large area of India in 1902-21."⁸

The areas which are acquiring the knowledge and the modes of life of the more advanced Western countries also find a reduced child mortality. The problem of child-birth to the parents, who expect fifteen out of every twenty children born to live, is different to what it may be when hardly two out of twenty survive. The fifteen children reared up by a married couple may all turn out to be clever people. They may add greatly to the wealth and welfare of the society, and also may be the source of legitimate pride and strength to the parents themselves in the old age, but for years the married couple may have to invest a greater part of their resources and leisure in rearing up this big family. They may have to give up many of the eagerly sought for cultural pursuits for which the modern civilisation is opening up so many possibilities. They may also rightly argue that if they have fewer children they may be able to give them better education and leave them much better provided for ; and also if they can properly space the interval between child-births they can bestow greater care on each child. Too quick a succession of child-birth is a serious strain on the mother, and by causing a neglect of the older children it increases the chance of infantile mortality, which, for all the acute mental and physical sufferings it causes to the parents, is an unmixed evil. There is thus no doubt that a method of birth control, which does not injure the moral feelings and the physique of the parents, will be greatly welcomed by most of the married people.

Malthus' remedy of postponed marriages was extremely utopian. If it is to be carried to the extent that it may exercise an effective check on the growth of population, it will condemn majority of men to life-long celibacy. Likewise post-nuptial attempts to family restrictions, unaided by contraceptives, will limit the sex life between the husband and the wife, perhaps, to as few occasions as the number of children they want to have. The importance of sex in the harmonious development of personality is now more clearly recognised. Recent studies on psycho-analysis have shown that too much repression of sex instincts is one of the important causes of the oft recurring cases of neurosis in modern civilised life.

⁸ Canan, *Review of Economic Theory*, p. 87.

It is a mistake to mix up the sex impulse with desire for progeny ; the former, excepting a few abnormal and perhaps pathological cases, is well nigh universal. It is equally strong, even when the latter is non-existent. It is as strong in those who are unmarried, as in those who are married ; and as strong with those who have large families, as with those who have small ones. Writing against Malthus' remedy of deferred marriages and forced celibacy, Place correctly suggested, "It is utterly useless to preach abstinence. It is not, and cannot be generally practised. Chastity and late marriages are as much opposed as any two things can be, as opposed as black and white." On the other hand, "If means are adopted to prevent the breeding of a large number of children, marriage under these circumstances, would be by far the happiest of all conditions, as it would also be the most virtuous and consequently the most beneficial to the whole community."⁴

There has been of late a well nigh universal and rapid fall in the birth-rate in Western Europe. The following table shows the changes in the birth-rate per thousand during the last few decades :

	1870	1900	1926
England and Wales	35.5	28.2	17.8
Germany	39.1	36.0	20.6
Sweden	30.5	27.1	17.5
Norway	30.2	30.3	20.0
Italy	36.9	33.4	27.5
France	25.4	22.0	19.0
Holland	36.1	32.2	..

* ⁴ *Illustration and Proofs of the Principles of Population*, 1822. Edited by N. E. Himes, 1930, p. 177.

Compare also the views of Harold Cox : "If young men and young women knew that they would be able after marriage to prevent having unwanted children many of them would marry earlier and to this extent irregular relationship and even professional prostitution would be reduced. The gain to the self-respecting, self-maintaining members of the industrial classes would be immense for they would be able to enjoy the comforts of a home and the pleasures of mutual companionship without over-hanging dread of having their standard of life lowered by the wife's repeated pregnancies and by the production of unwanted children." (*Problem of Population*, 1922, p. 135).

Delayed marriages only partially account for it. Abortion too, even now, is not uncommon in these countries. According to Julius Wolf there are 600,000 artificial abortions annually in Germany; and as Bertrand Russell remarks, "It is more difficult to arrive at an estimate for Great Britain, owing to the fact that miscarriages are not registered, but there is reason to think that the facts are not so very different from those in Germany."⁵ The abortions are generally confined to the poorer people, who sometimes may have no knowledge, or may be unable to purchase contraceptives. There is no doubt that most of the fall in the birth-rate in the western countries is due to the very extensive use of contraceptives. A similar fall is a marked tendency in other countries too, which are rapidly acquiring western culture.

From the social point of view the modern birth control movement raises two important problems. In the first place, there is the problem of decline in the quality of the people through differential fertility. Secondly, there is the question of the decline of the population as a whole as birth control is more extensively practised.

Let us take the first of these problems. It is generally observed that the birth control movement has started at the wrong end. It is practised most amongst the more intelligent, educated, well-to-do and progressive sections of the community, and it is practised less and less as we go down lower in the social scale, until we come to the mentally and otherwise defective people, who do not practise it at all. At the same time the advance of medical knowledge and improved conditions of life have greatly increased the child survival rate amongst all classes of people. The net effect of these tendencies is that the stock of people, which is judged better from the various current standards of achievements, is contributing proportionately much less to the coming generations; and in so far as their success in life is due to their superior innate qualities, the quality of the future population is bound to suffer. Karl Pearson rightly draws attention to this highly dysgenic state of affairs: "As we have found an antinomy between high civilisation and race purification by natural selection, so there appears to be a corresponding antagonism between individual comfort and racial welfare. It is again the tendency of higher civilisation to suspend the more drastic phases of the struggle for existence and the survival of the fitter. The man of education, or made position, says: 'The chances of my children are better if I have but few of them;

⁵ *Marriage and Morals*, p. 203. Compare the following remark of Prof. East about artificial abortions in America. "Max Hirsch places the number at two millions annually in the United States. The estimate of Robinson is one million and the estimate of G. W. Williams of Johns Hopkins is half a million. The last guess is undoubtedly the most reasonable."—*Mankind at the Cross Roads*, p. 262.

and we reach the startling condition of America where the classes of ability, the classes which take their standard an academic education, are not reproducing themselves, their average number of offspring being less than two ; we reach the state of affairs which, Mr. Sydney Webb tells us, is demonstrable in another intellectual circle in this country, an almost childless population with no inheritance of its ability. And against this we have to set the maximum fertility which is reached by the degenerate stock."⁶

Against this apprehension that the present differential birth-rate may greatly deteriorate the quality of the future populations, we may set the following two considerations. In the first place, as the methods of birth control are better known and are more easily available even to the poor, this disparity between the contributions that the different classes of society are making to the coming generations may disappear.

In the second place, though it cannot be denied that both physical and mental qualities are to a very great extent inheritable, yet which of them are more desirable and worth encouragement, is a very vexed question. Lower sections of the society may possess some qualities which may be highly desirable. As Car Saunders observes : "Intelligence is but a part of mental endowment. But we know nothing regarding the distribution of other mental qualities between the classes. It is true that a case can be built up to show that certain valuable temperamental qualities are probably found more frequently in the higher than in the lower social grades. On the other hand, this may be countered by the arguments tending to show the converse regarding other valuable temperamental qualities. We are almost equally ignorant regarding the endowment of the classes in respect of physique, including all that goes towards providing the foundations of health and vigour. One of the few indications of any importance is derived from measurements of men during the war whose occupations were known. Miners and agricultural labourers came out at the top of the list when those following different occupations were graded in respect of physique. When we remember that miners and agricultural labourers make the largest proportional contributions to future generations, it seems difficult to accept the suggestion that physical endowment is at present unfavourably affected by differential fertility."⁷ But after due concession is given to the above considerations, the fact yet remains that in so far as the more intelligent, progressive and well-to-do sections contribute a diminishing proportion to the coming generation, the quality of the population is likely to suffer. These are the very classes, which

⁶ *The Scope and Importance of the Science of National Eugenics*, p. 45.

⁷ *World Population Conference*, 1928, p. 142.

apart from the inheritance of sound mental and moral qualities, can also bring up children in a better and healthier atmosphere ; and if they contribute their proper share to the new births, the coming generations will have the benefit of a larger number starting life with better moral, mental, and material equipment.

Let us now take the other important social problem raised by the birth control movement, *i.e.*, the decline of the population as a whole. As practised to-day birth control is essentially a private policy of the individuals, and little attention is paid by them to the national population requirements. In so far as it is the outcome of individual's desire for more and more personal comforts and luxuries, once these become the common goal of a whole populace, there is not much reason to think that the fall in the birth-rate would stop at a point, where a stationary population is reached. "It may easily go on until the population begins to diminish, and the ultimate result may for aught one can tell, be a virtual extinction of the most civilised races."⁸

It has now been for sometime that France had a stationary population, and apprehensions are raised that her population may even fall short of the national requirements. It is well known that certain regions of France are depopulated to-day, fertile land is abandoned by the natives, sometimes, to the advantage of foreigners. Thus, the limitation of births may lead to consequences which become detrimental to the general economic condition of the country, and may imperil its stability. A similar position is likely to prevail in England where the birth-rate is now lowest in the world. Apprehensions of Bowley⁹ and Canan¹⁰ of a declining population in England, a decade hence, are not unfounded. It is observed by a number of eminent writers that in England "The problem of the increasing working population is one of the next few years only, and if no change

⁸ Bertrand Russel, *Marriage and Morals*, p. 194.

It is well known how the various efforts to encourage marriages amongst the Romans failed and one of the important causes of the decline of the Roman Empire was the loss of man-power. Compare the following views of Cunningham. "The evidence as to the decline of the population brings out a disastrous condition of affairs ; under such peaceful conditions as the Empire afforded, one might have expected the population to increase with considerable rapidity. The fact that it seems to have declined certainly indicates that a lack of vigour affected all the people of the Roman Empire ; whether this was due to physical or to moral causes, the vitality of the imperial subjects seems to have been so far sapped, that they did not make the most effective use of the centuries of peace, and were unprepared to resist the onslaught of the barbarians in the third century of our era."—"Western Civilisation", Vol. I, p. 180.

⁹ *Is Unemployment Inevitable*, pp. 359-65.

¹⁰ See Prof. Canan's address to the British Association, 1931.

occurs in the birth-rate the problem fifteen years hence may be an insufficiency of labour."¹¹ Thus, there seems to be sufficient grounds for the views of Hogben that "before this generation has passed we shall be compelled to face the problem of deciding how the populations of Northern Europe may save themselves from a continuous decline which once begins may be difficult to arrest."¹² Similar problems, both regards the quality and the quantity of population are likely to arise, sooner or later, in other countries also which are rapidly assimilating the Western culture.

We have tried above to envisage the dangers to the society which are implicit in the present birth control movement. It will be absurd both from the individual and the social points of view to revert to uncontrolled and unregulated births. But if the social stability and progress are to be secured, there is a need of well-defined social policy in this matter. Society has to secure itself against the deterioration of the quality of the population as well as against its decline.

The studies on heredity have clearly shown that physical and mental qualities, both good and bad, are inheritable ; and the racial improvement will have to begin by the encouragement of child-birth amongst the people with sound natural endowments. It may be helpful to classify the population for this purpose under the three following heads :

- (a) Defective stock, consisting of persons with physical and mental defects which are inheritable. e.g., insanity, idiocy, leprosy, phthisis, blindness, deaf-mutism.
- (b) Normal stock, consisting of persons with normal health and average ability.
- (c) Superior stock, consisting of persons characterised by more than average capabilities.

So far as the defective stock is concerned, it will be in the highest interests of society if further procreation can be completely stopped. Sterilisation of such persons is a socially desirable policy. Even from the point of view of the individual, no serious objection can be raised against sterilisation, as it leaves the man or the woman in a position to have full sexual enjoyment. It only incapacitates them from producing children.

As regards the normal stock, which constitutes the mass of mankind everywhere, each married couple should be encouraged to bring up the number

¹¹ *Is Unemployment Inevitable*, p. 9.

¹² *Economica*, May 1931.

of children, which is at least compatible with the numerical stability of the population. Taking into consideration the child mortality under even the best conditions of health, and also the fact that some persons in this group would remain unmarried, if the population is to be kept at a stationary level, the number of children born to each married couple should be at least three on an average. If we also account for infertile marriages, which are about ten per cent. of the whole, we can easily see that even to maintain a stable population, birth-rate per fertile marriage should be higher than three.

Society may be able to guarantee this stability by adopting the scheme of family allowances. This system is being greatly pressed in France. Its usual form is that the wages paid in a business to any particular type of labour are pooled and are distributed according to the family responsibilities of wage-earners. This system does not affect the employer. He pays the same amount in wages as before, but the workmen receive wages in proportion to the number of children they have. Another device is parenthood insurance which too does not involve any extra cost to either the employer or the State, as it may be obtained from the contributions from the unmarried and the childless.

As regards the third group, which we have designated as the superior stock, there seems to be at present the greatest need in its case for the encouragement of more births. This is the group which, as we have already noted, though in a far better position to bring up children, is refusing to take up this burden. Mere reduction in tax-burdens, as is being done in England and some other western countries in the form of concessions for wife and children allowed in the income-tax, may not be sufficient. A certain co-relation between the earnings of the individual and his family responsibilities may also become necessary for this class of people. As Prof. McDougal remarks, "What is required to counteract the very powerful dysgenic influence of the economic consideration, or prudence, is that every family which has risen above the mean social level should know that addition of each child should automatically bring with it an increase of income sufficient to meet the expenses normally incurred in bringing up that child. It is clear that, in order to meet this requirement, the amount of increase of income would have to bear some given proportion to the income already enjoyed or earned. This increase of income should, I suggest, be not less than one-tenth of the earned income and might be well rather more."¹⁸ A beginning can be made in this direction in case of the State and other organised services, and particularly if such services attract a large number of more intelligent youths.

¹⁸ *National Welfare and National Decay*, p. 197.

These efforts will not be without their beneficial effects. Two things will be necessary to effect this change. In the first place, the initial salary will have to be higher and the early increments to be more rapid so as to encourage the man to marry and have children in the prime of his life. Secondly, increment in salaries will to some extent be given at the time of marriage and the birth of each child. These increments will not ordinarily be given to those in the same rank and for the same period of service who are single or childless. This will not increase the financial burden to the State as the same sum will be spent, only those with many children would get more salary at the expense of the single and the childless.

If society, through the methods discussed above or similar other methods, is able to safeguard the quality as well as the stability of the population, then, and then only the fullest extension of the birth control movement will bear its best fruit, and it will work in the highest interests both of the individual and society. A mere fall in the birth-rate, otherwise, will be just an indication of an increasing desire for luxury, and a loss of faith not only in the capacities of the present generation, but those of the coming generations too. It may be the pressage of a doom, and only the beginning of the old process by which old and decrepit races are replaced by new and vigorous ones, in whom increasing difficulty of getting a living, which excess of fertility entails, stimulates greater mental activity.

ON SOME INTEGRALS INVOLVING LEGENDRE FUNCTIONS

BY DR. N. G. SHABDE

1. THE object of this short paper is to obtain certain integrals involving Legendre functions. The results arrived at do not seem to have been noted before for these functions.

2. Einar Hille* has shown that

$$\int_0^\infty e^{-zu} \phi_n(u) du = \psi_n(z)$$

where $\phi_n(u) = e^{-u^{1/2}} \cdot \sqrt{2n+1} P_n(e^{-u})$ and

$$\psi_n(z) = \frac{(z - \frac{1}{2})(z - \frac{3}{2}) \cdots (z - n + \frac{1}{2})}{(z + \frac{1}{2})(z + \frac{3}{2}) \cdots (z + n + \frac{1}{2})} \quad (2.1)$$

It is also known† that

$$P_p(\mu) P_q(\mu) = \sum_{r=0}^q \frac{A_{p-r} A_r A_{q-r}}{A_{p+q-r}} \left(\frac{2p+2q-4r+1}{2p+2q-2r+1} \right) P_{p+q-2r}(\mu)$$

$$\text{where } A_r = \frac{1 \cdot 3 \cdot 5 \cdots (2r-1)}{r!} = \frac{2^r \cdot (\frac{1}{2})_r}{r!}, \quad p \geq q \quad (2.2)$$

These give

$$\begin{aligned} & \int_0^\infty e^{-(m+\frac{1}{2})\mu} P_p(e^{-\mu}) P_q(e^{-\mu}) d\mu \\ &= \sum_{r=0}^q \frac{A_{p-r} A_r A_{q-r}}{A_{p+q-r}} \left(\frac{2p+2q-4r+1}{2p+2q-2r+1} \right) \int_0^\infty e^{-(m+\frac{1}{2})\mu} P_{p+q-2r}(e^{-\mu}) d\mu \\ &= \sum_{r=0}^q \frac{A_{p-r} A_r A_{q-r}}{A_{q+q-r}} \left(\frac{2p+2q-4r+1}{2p+2q-2r+1} \right) \psi_{p+q-2r}(m) \frac{1}{\sqrt{p+q-2r+1}} \end{aligned} \quad (2.3)$$

3. The associated Legendre function

$$P_n^m(\mu) = \frac{\Gamma(n+m+1)}{2^m \cdot \Gamma(n-m+1) \cdot \Gamma(m+1)} \frac{(\mu^2-1)^{1/2}}{F\left(\frac{m+n+1}{2}; \frac{m-n}{2}, m+1, 1-\mu^2\right)}$$

if $n-m$ is even (3.1)

* "Bilinear formulas in the theory of the transformation of Laplace," *Compositio Mathematica*, Vol. VI, fasciculus 1, p. 100.

† "On the product of two Legendre polynomials," W. N. Bailey, *Proc. Camb. Phil. Soc.*, Vol. XXIX, Part II, p. 173.

Taking $n = m$ as an even integer we get

$$P_n^{-m}(\mu) = \frac{1}{2^m} \cdot \frac{(\mu^2 - 1)^{1/2}}{\Gamma(m+1)} \cdot F\left(\frac{m+n+1}{2}; \frac{m-n}{2}, m+1; 1-\mu^2\right). \quad (3.2)$$

This gives

$$\begin{aligned} \sinh^m \theta \cdot P_n^{-m}(\cosh \theta) &= \frac{1}{2^m \cdot \Gamma(m+1)} \sinh^{2m} \theta \times \\ &\times \sum_{r=0}^{\frac{n-m}{2}} \frac{\left(\frac{m+n+1}{2}\right)_r \left(\frac{m-n}{2}\right)_r (-1)^r}{r! (m+1)_r} \sinh^{2r} \theta. \end{aligned} \quad (3.3)$$

Hence we have

$$\begin{aligned} &\int_0^\infty e^{-p\theta} \sinh^{m+\alpha} \theta \cdot P_n^{-m}(\cosh \theta) d\theta \\ &= \frac{1}{2^m \Gamma(m+1)} \sum_{r=0}^{\frac{n-m}{2}} \frac{\left(\frac{m+n+1}{2}\right)_r \left(\frac{m-n}{2}\right)_r (-1)^r}{r! (m+1)_r} \int_0^\infty e^{-p\theta} \cdot \sinh^{2m+2r+\alpha} d\theta \\ &= \frac{1}{2^m \cdot \Gamma(m+1)} \sum_{r=0}^{\frac{n-m}{2}} \times \\ &\times \frac{\left(\frac{n+m+1}{2}\right)_r \left(\frac{m-n}{2}\right)_r (-1)^r \cdot \Gamma(2m+2r+\alpha+1) \cdot \Gamma\left(\frac{1}{2}p - m - r - \frac{\alpha}{2}\right)}{r! (m+1)_r \cdot 2^{2m+2r+\alpha+1} \Gamma\left(\frac{1}{2}p + m + r + \frac{\alpha}{2} + 1\right)} \end{aligned}$$

for $R(p - 2n - \alpha) > 0$, and $(n - m)$ an even integer (3.4)

Bailey* has shown that

$$\begin{aligned} &\int_0^\infty e^{-p\theta} \sinh^m \theta \cdot P_n^{-m}(\cosh \theta) d\theta \\ &= \frac{\Gamma(m+\frac{1}{2})}{2^{m+1} \sqrt{\pi}} \cdot \frac{\Gamma\{\frac{1}{2}(p+n-m+1)\} \Gamma\{\frac{1}{2}(p-m-n)\}}{\Gamma\{\frac{1}{2}(p+m-n+1)\} \Gamma\{\frac{1}{2}(p+m+n+2)\}}. \end{aligned} \quad (3.5)$$

Differentiating this with respect to p we get

$$\begin{aligned} &\int_0^\infty e^{-p\theta} \theta \cdot \sinh^m \theta \cdot P_n^{-m}(\cosh \theta) d\theta \\ &= \frac{\Gamma(m+\frac{1}{2})}{2^{m+1} \sqrt{\pi}} \left[\frac{\Gamma\{\frac{1}{2}(p+n-m+1)\} \Gamma\{\frac{1}{2}(p-m-n)\}}{\Gamma\{\frac{1}{2}(p+m-n+1)\} \Gamma\{\frac{1}{2}(p+m+n+2)\}} \right] \times \\ &\times \frac{1}{2} \left[\psi\{\frac{1}{2}(p+n-m+1)\} + \psi\{\frac{1}{2}(p-m-n)\} \right. \\ &\left. - \psi\{\frac{1}{2}(p+m-n+1)\} - \psi\{\frac{1}{2}(p+m+n+2)\} \right] \end{aligned}$$

where $\psi(z) = \frac{\Gamma'(z)}{\Gamma(z)}$ (3.6)

* "Some integral formulæ involving associated Legendre functions," *Journ. London Math. Soc.*, 1938, Vol XIII, p. 168.

As particular cases of (3.6) we get

$$\int_0^\infty e^{-t\theta} \cdot \theta \cdot P_n(\cosh \theta) d\theta \\ = \left[\frac{(p^2 - 1^2) \cdots (p^2 - (n-1)^2)}{p(p^2 - 2^2) \cdots (p^2 - n^2)} \right] \left[2p \left\{ \frac{1}{p^2 - 1^2} - \frac{1}{p^2 - 1^2} + \cdots - \frac{1}{p^2 - n^2} \right\} - \frac{1}{p} \right]$$

if n is even,

and

$$= \left[\frac{p(p^2 - 2^2) \cdots (p^2 - (n-1)^2)}{(p^2 - 1^2) \cdots (p^2 - n^2)} \right] \left[\frac{1}{p} - \frac{2p}{p^2 - 1^2} + \frac{2p}{p^2 - 2^2} - \cdots - \frac{1}{p^2 - n^2} \right] \\ \text{if } n \text{ is odd.} \quad (3.7)$$

THE WATER OF CONSTITUTION OF CERTAIN TYPICAL SOILS OF THE CENTRAL PROVINCES, AND ITS BEARING ON THE PARENT ROCK MATERIAL FROM WHICH THE SOILS ARE FORMED

BY MESSRS. R. H. JOSHI, M.Sc., AND K. G. JOSHI, B.AG.

(Agricultural Research Institute, Nagpur)

IT is well known that the loss suffered by an oven-dry soil on ignition, differs from its organic matter content, as obtained by multiplying the organic carbon by the usual factor 1.724. This difference is supposed to be due to the chemically combined water which is not lost by heating the soil to 105° C. According to S. Matson³ this water of constitution is present in the individual molecules of the hydrated oxides of iron, aluminium, silicon and their various combinations. Baver and Horner² suggest that this water of constitution is a part of the crystal lattice of the clay.

With a view to ascertaining the temperature upto which the water of constitution is retained by the soil certain typical soils were in the first instance heated to different temperatures and the results obtained are given in Table I. The last column in this table gives the water of constitution as obtained by the difference in the loss on ignition determined by the American Official Method,⁴ and the organic matter content, calculated from the percentage of organic carbon determined by Schollenberger's method as modified by Allison.¹

TABLE I. Percentage loss of moisture at different temperatures

Soil	Up to 105° C.	105° to 125° C.	125° to 180° C.	105° to 180° C.	Water of consti- tution
Nagpur black cotton soil	..	8.80	0.23	1.73	1.96
Akola black cotton soil	..	6.64	1.50	0.66	2.16
Kabar soil	..	7.99	0.04	1.21	1.25
Matasi soil	..	2.07	0.00	0.91	0.91
Bhata soil	..	1.76	0.00	1.16	1.16
					4.28

It is evident from the above table that no water of constitution is lost by heating the soil up to a temperature of 125° C. and a part, i.e., nearly one-third of the total amount, is lost at 180° C., showing thereby that the absolute percentage of water of constitution could be determined by heating the soil to temperatures higher than 180° C. Baver and Horner,³ e.g., showed that in the case of clays this loss of water reaches its maximum at 700° to 800° C.

According to the view of the investigators referred to above the water of constitution is essentially a part of the colloidal complex and accordingly it would therefore be reasonable to assume that it would vary with varying percentages of clay. Samples of soils were therefore analysed to find out the relationship if any of the water of constitution to the clay content of the soils and the results obtained are given in Tables II and III below :—

TABLE II. *Analyses of soils from the Central Provinces*

Soils	Clay %	Moisture %	Loss on ignition %	Carbon % × 1.724	Water of constitution %
Nagpur Black cotton soil ..	47.0	8.80	6.61	0.987	5.62
Akola Black cotton soil ..	36.0	6.60	7.24	0.871	6.37
Nagpur Grass land soil ..	24.8	5.0	7.31	1.40	5.9
Darwha Black cotton soil ..	40.0	12.67	7.05	1.90	5.15
Kabar soil ..	52.0	8.00	5.40	0.61	4.79
Kanhar soil ..	44.0	6.11	4.82	0.998	3.82
Kheri soil ..	45.0	6.38	3.96	0.71	3.25
Dorsa soil ..	32.4	5.11	4.50	1.06	3.44
Mariar soil ..	39.6	6.41	3.71	0.82	2.89
Wardi soil ..	20.28	4.23	3.56	1.02	2.54
Sihar soil ..	18.1	1.31	2.01	1.19	0.82
Matasi soil ..	18.5	2.07	2.21	1.22	0.99
Bhata soil ..	11.2	1.76	5.31	1.03	4.28

TABLE III. Analyses of soils from other Provinces

Soils		Moisture %	Loss on ignition %	Org. Mat. %	Water of constitution %
Bombay black cotton soil	..	9.08	6.32	0.99	5.33
Assam soil	..	0.90	4.19	1.58	2.61
Coimbatore paddy soil	..	5.45	3.65	1.10	2.55
Pusa soil	..	0.53	1.92	0.97	0.95
Bara soil from Lyallpur	..	0.48	2.66	0.36	2.30

Results given above clearly show that the water of constitution of these soils is not proportional to their varying clay contents.

With a view to determining the exact stage in the formation of soils at which the water of constitution begins to appear, samples of weathered and unweathered trap rock and certain soils derived from it were analysed and the results obtained are given in Table IV below :

TABLE IV. Percentage of water of constitution in various products of weathering and soils from trap rock

Weathered material		Moisture %	Loss on ignition %	Org. Mat. %	Water of constitution %
Trap rock	..	..	Negligible	..	..
Green murum	..	12.20	3.30	0.012	3.28
Red murum	..	6.02	3.30	0.14	3.16
Khardi-Pathar	..	6.75	5.35	0.54	4.81
Red soil from a hill slope	..	9.40	7.10	1.44	5.66
Morand I (black soil)	..	9.80	6.86	1.03	5.83
Silt from Nullah (Akola)	..	8.25	6.07	0.91	5.16

Results given above clearly indicate that the water of constitution is first formed during the process of initial hydration of rock minerals as represented by the two samples of *murum*, and that it is subsequently increased as the weathering progresses and gives rise to the formation of clay.

From the analytical results given in Tables II and III, it is observed that there is a striking variation in the water of constitution of different types of soils, but that such a variation does not exist in the case of soils derived from the same parent materials weathered under varying climatic conditions. This is particularly evident in the case of the soils derived from either the trap rock or the sandstone from different localities of the Province. This observation, therefore, indicates a possibility of determining the parent material of various soils from their water of constitution and an attempt has been made to tentatively differentiate the soils so far examined on this basis as shown in Table V below :—

TABLE V. *Water of constitution of some C. P. soils derived from various rocks and that of a granite soil from Hyderabad*

> 5.0 Soils from trap rock	2.0 to 5.0 Soils of mixed origin as, e.g., from limestone, sandstone and shales	1.0 to 2.0 Soils from granite	< 1 Soils from sandstone
Nagpur black soil .. 5.60	Kabar black soil .. 4.84	Hyderabad granite soil .. 1.50	Sihar grayish yellow .. 0.89
Darwha black soil .. 5.10	Kheri black soil .. 3.25		Matasi grayish yellow .. 0.99
Akola black soil .. 6.30	Mariar black soil .. 2.89		
Nagpur grassland .. 5.90 (reddish soil)	Dorsa black soil .. 3.40		
Bombay black soil .. 5.30	Kanhar black soil .. 3.80		
	Wardi red soil .. 2.49		
	Bhata red soil .. 4.20		

Results given in Table V show that the percentage of the water of constitution in the case of soils derived from the trap lies between 5 and 6, and that it is less than 1.0 in the case of sandstone soils. In soils derived from a mixture of sandstone, limestone and shales, the water of constitution varies

from 2 to 5 per cent., whereas in the case of a purely granitic soil it was found to be 1.5 per cent.

The authors are indebted to Professor D. V. Bal, Agricultural Chemist to Government, C. P. and Berar, Nagpur, for the kind help given and the interest shown by him in the work.

Summary

1. Water of constitution of some typical soils has been determined and an attempt has been made to tentatively differentiate the parent materials of these soils on this basis.
2. It was found that the water of constitution from the soils was lost partially when the soils were heated to a temperature of 125° to 180° C. and that it was completely lost only when they were ignited.
3. Water of constitution of the soils is not affected by the variations in the clay content.
4. Water of constitution is first formed during the process of initial hydration of rock minerals, and that it is subsequently increased as the weathering progresses and gives rise to the formation of clay.
5. It was observed that there is a striking variation in the water of constitution of soils derived from different rocks, but such a variation does not exist in the case of soils derived from the same parent material but weathered under varying conditions of climate.
6. Soils derived from trap rock showed the highest water of constitution, namely 5 to 6 per cent., and those derived from sandstone showed the lowest, i.e., about 1.0 per cent.
7. The results obtained indicate a possibility of determining the parent material of various soils on the basis of their water of constitution.

REFERENCES

1. Allison, L. E., "Organic soil carbon by reduction of chromic acid," *Soil. Sci.*, 1935, 40, 311-20.
2. Bauer, L. D., and Horner, A. M., "Water content of soil colloids," *ibid.*, 1933, 36, 329-53.
3. Matson, S., "Laws of soil colloidal behaviour," *ibid.*, 1932, 33, 301-23.
4. *Methods of Analysis of the Association of Official Agricultural Chemists*, 3rd edition, 1930.

PRASĀD AS A SUBJECTIVE IDEALIST

BY HARI DATTA DUBE, Esq., M.A.

LITERATURE is a wordy panorama of the undulating expanse of human life with its rare heights and its rare recesses—the glittering icy crowns of the former nestling in the embrace of divine intimacy, and the sombre darkness of the latter undermining the entire scene—the former perpetually awe-inspiring and inviting, the latter perpetually sickening and forbidding—the former dominating the entire horizon and the latter hiding their ugly existence. The entire effect is so mingled and confusing that the common eye completely fails to see the wood for the trees. But the divine purpose which is controlling this vast affair endows some eyes with the rare power of distinguishing the minute details of the panorama from one another. The common eye is enabled to get a clear glimpse of the entirety only through such gifted eyes.

We can, of course, question the desirability of sandwiching the almost colourless common between these contrasts—as a matter of fact it has been questioned in more ways than one and practically in every age but the best human minds have always found themselves in harmony with it and curiously enough the common minds have always submitted to the ruthless adjustment of these extremes with wonderful composure. In fact this resignation is the accumulated experience of the race which repeatedly realised that a fighting attitude was as ineffective as an attitude of apathy. This resignation however should not be mistaken for an avowal of defeat which is a complete negation of all activity. This resignation is that cheerful acceptance of the inevitable which is invariably a source of intimacy, and as such it has made the approach of the thinking mind to human life that of an ardent lover affording incalculable happiness, and not that of a dissecting surgeon, nor even that of a passing meteor.

Human life has an exterior as well as an interior; and being an attempt to delineate human life, literature should correspond to both of these. This gives rise to two different outlooks on life in literature, objective and subjective. The very prolific sources of misunderstanding are the confusion of the objective treatment of a thing with realism which is a meticulously faithful representation of the real and that of the subjective treatment of a thing with idealism which is the imaginary realization of the fullness of spiritual aspirations. I have explained these terms because in the first place, I am

afraid, they are generally very loosely used; in the second place, because I do not feel quite sure about their orthodox acceptations.

Realism can be both objective and subjective and so can be idealism. Thus all treatment in creative literature can be divided into the following four classes :—

1. Objective Realism,
2. Subjective Realism,
3. Objective Idealism,
4. Subjective Idealism.

The first has practically no place in creative literature. The second has a very important place. Much of our lyric poetry comes under this class and a very large amount of modern Hindi poetry is subjectively realistic. Its appeal to youth is immediate though temporary. The reason is that youth is the time when vague yearnings predominate, when the objective world appears to be insufficient, but the spiritual life is yet so immature that idealism is out of place. There is one more reason: youth naturally is the spring time of sensuality and an objective gratification of the sensual tendencies being restricted, if not barred, in the present state of a civilized society subjectivity not only serves as a convenient veil to cover the ugliness of these tendencies, but it even gives it an exterior of respectability. Nothing could be farther from me than a desire to insinuate that creations under this class cannot be noble and abiding. In fact, subjective realism has given us quite a large amount of pleasant poetry :

झर गई कली, झर गई कली !

चल-सरित-पुलिन पर वह बिकसी,
उर के सौरभ से सहज-बसी,
सरला प्रातः ही तो बिहँसी,
ऐ कूद सलिल में गई चली !

आई लहरी चुम्बन करने,
अधरों पर मधुर अधर धरने,
फेनिल मोती से मुँह भरने,
वह चंचल-सुख से गई छली !

आती ही जाती नित लहरी,
कब पास कौन किसके ठहरी ?
कितनी ही तो कलियाँ फहरी,
सब खेलीं, हिलीं, नहीं सँभली !

निज शृङ्खला पर उसे स्थिलना था,
नव नव लहरों से मिलना था,
निज सुख-दुख सहज बदलना था,
रे गेह छोड़ वह वह निकली !

है लेन-देन ही जंग-जीवन,
अपना पर सब का अपनापन,
खो निज आत्मा का अश्रय धन,
लहरों में भ्रमित, गई निगली !

—पत्त

This is a very nice example of innocent subjective realism. What I mean to say is that under the innocent looking cover of subjectivity vent is often given to rank sensuality.

The third is the most important of all from the view-points of popularity and permanency. All the best-loved immortal works of creative literature come under this head; the *Rāmāyaṇa* and the *Rāmacharitamānas* being the best examples. A clear understanding of this point demands an examination of the issues involved. As a rule the human soul wants to realise its highest aspirations through the real, the physical, the palpable. The physical by itself is too gross and not enough; and the spiritual by itself is too subtle, evasive and unsubstantial. It is only an organic blend of the two that is most pleasing to it. Rāma and Sītā, Yudhiṣṭhīra and Bhīṣma are as much human beings as we are ourselves; they share our joys and sorrows, they are as much subject to the common affections of our life as we are and yet, in some inscrutable way, they are above us and therefore lovable and respectable. It is for this reason that humanity hugs the *Rāmāyaṇas* and the *Rāma-charitamānas* permanently.

The fourth is the highest class from the view-point of fineness; though it is not the most popular. It is permanent, though its permanence is based on the superfine tastes of a few in society. For this reason this type of creative literature has not been adopted by those whose aim was to reach the lowest strata of human society and yet to command its loftiest heights. From the very beginning of civilization the world has been influenced and swayed almost entirely by the last two kinds of creative literature; the third always being the accredited leader of human ambition, and the fourth serving as the veiled source of inexhaustible inspiration. Vālmiki, Vyāsa and Tulsidāsa belong to the former class, while Dante, Goethe and Prasad belong to the latter. As we are here concerned with the last class we shall consider its peculiarities at some length.

As pointed out above, an organic blend of the palpable with the subtle, of the real with the ideal, is the dearest thing to humanity. Wherever there is immortal art, this blend must be its foundation. This is a rule to which there is no exception. But this blend can be effected in two ways: firstly, by extending the boundaries of the palpable real till it merges into the limitless ideal, the merger being effected in the subtlest and the most imperceptible way—and this requires the highest form of art—and secondly, by imposing a realistic exterior upon the subtle interior of actual human life and then extending it into the ideal. The weak point of this last method is obvious; its basis is not objective reality but only a semblance of it.

One more point by way of clarification. The real has two sides, the objective and the subjective. Our ideas, the intricate workings of our minds, are as much real as the material world. As we are concerned here mainly with human life, we can say that the actual external facts of human life have their counterparts in the inner workings of the mind, in fact, in the entire inner behaviour of the soul. These two sides are real entities. The interior, the seamy side of life, has no doubt ugly seams here and there, but its main expanse is brighter in colour because it is not exposed to the tarnishing external influences. Naturally it is not familiar to our eyes, and this want of familiarity sometimes makes it appear as something imaginary and unreal.

The subjective idealist bases his idealism on this interior of human life to which he first imparts a semblance of the objective exterior. Thus he presupposes an amount of imaginative, sometimes also intellectual effort on the part of the reader. His method makes his task comparatively easier than that of the objective idealist in so far as he is not faced with the difficulty of merging the grossest real into the finest ideal; but it also makes his creation less popular, because his product has not that familiar setting which is the strongest attraction in the work of the objective idealist. It is for this reason that Dante, Goethe and Prasād cannot become Vālmīkis and Tulsīdāsas.

The *Kāmāyanī* of Prasād belongs to the class of subjective idealism. It has all the qualities and shortcomings of this class of literature. Now we shall undertake a thorough examination of the book in the light of these preliminary observations. But as such examination would require a thesis of considerable length, I propose to treat the various parts of it in instalments, the present article being only an introduction to the thesis.

The origin of humanity has been variously conceived but it was reserved for Prasād to make the boldest, the clearest and yet the most poetic contribution in this connection. The various poet philosophers have attempted, from time to time, to approach the question from different view-points, but

in many cases the result has been only a fruitless beating about the bush; only a few in the world have succeeded in achieving something definite. Human life is the culmination of all this varied creation; but even after reaching this lofty plane, life for some time clings to its sensuality, to its gross carnal propensities. This infant humanity is thus only a shade higher than the brute plane it has left below, and the old drama of merriment goes on merrily till one day the same upheaving tendency asserts itself and there is a veritable deluge washing everything before it. This genesis of the human soul is as much true in the case of every individual human being, as it is in the case of the race as a whole. That the individual is the epitome of the species is nowhere else so true as in this connection. Yes, then the deluge throws man on a lofty peak of the Himalayas :

हिमगिरि के उत्तुंग शिखर पर,
बैठ शिला की शीतल छाँह,
एक पुरुष भींग नयनों से,
देख रहा था प्रलय-प्रवाह !

—चिंता (कामायनी)

and this हिमगिरि need be no other than the rare heights to which we referred in the beginning.

The height of the present position of Manu enables him to look around and compels him to think for himself, to take stock of things. And this is the point where life enters upon the plane of real humanity, which is certainly higher than देवलोक, the world of senses and sensuality. Perhaps I need not point out that one of the meanings of the word देव is इन्द्रिय, an organ of sense.

The power of reflection, चिन्ता which is the most important, if not the only, differentia of humanity, comes upon him with all its staggering force:

ओ चिंता की पहली रेखा,
अरी विश्व बन की ड्याली ;
ज्वालामुखी स्फोट के भीषण,
प्रथम कंप सी मतवाली !
हे अभाव की चपल बालिके,
री ललाट की खल लेखा !
हरी-भरी सी दौड़ धूप, ओ
जल-माया की चल रेखा !

बुद्धि, मनीषा, मति, आशा, चिं-
ता हैं तेरे कितने नाम !
अरी पाप है, जा, तू, चल, जा
यहाँ नहीं कुछ तेरा काम !
विस्मृति आ, अवसाद धेर ले,
नीरवते ! बस चुप कर दे ;
चेतनता चल जा, जड़ता से
आज शून्य मेरा भर दे ।

—चिंता (कामायनी)

‘प्रथम-कम्प’ is very highly significant.

This naturally leads him to feel the contrast between his present and past conditions with much force :

मनन करविगी तू कितना
उस निविन्द्त जाति का जीव !
अमर मेरगा क्या ? तू कितनी
गहरी डाल रही है नीव !

—चिंता (कामायनी)

And he feels ashamed of his past life and condemns it. First he is reminded of what he was :

चिंता करता हूँ मैं जितनी
उस अतीत की, उस सुख की ;
उतनी ही अनन्त में बनती
जाती रेखाएं दुख की ।
* * * * *
मणि-दीपों के अन्धकार-मय
अरे निराशा-पूर्ण भविष्य !
देव-दम्भ के महा भेद में
सब कुछ ही बन गया हविष्य !
* * * * *
प्रकृति रही हुर्जेय, पराजित
हम सब थे भूले मद मे ;
भोले थे, ही तिरते केवल
सब विलासिता के नद में ।
वे सब हूँबे ; हूँबा उनका
दिभव बन गया पारावार ;
उमड़ रहा है देव-सुखों पर
दुःख-अलधि का नाद अपार ।

—चिंता

and then he reflects upon that discarded past:

वह उन्मत्त विलास हुआ क्या ?
स्वप्न रहा या छलना थी !
देव-सृष्टि की सुख विभावरी
ताराओं की कलना थी
* * * * *
कीर्ति, दीपि शोभा थी नचती
अरुण किरण सी चारों ओर
सप्त सिंधु के तरल कणों में,
हुमदल में, आनन्द-विभोर ।
* * * * *

गया, सभी कुछ गया, मधुरतम
सुरबालाओं का शंगार;
उषा ऊयात्मा सा यौवन-स्मित
मधुप सद्वश निश्चित विहार ।
भरा वासना-सरिता का वह
कैसा था मदमत्त प्रवाह,
प्रलय-जलधि में संगम जिसका
देख हृदय था उठा कराह ।

—चिंता

One stanza herein is very important:

खयं देव थे हम सब, तो फिर
क्यों न विश्वल होती सृष्टि
अरे अचानक हुई इसी से
कड़ी आपदाओं की वृष्टि ।

—चिंता

True, the cause of all the miseries and disorder prevailing in the world is our identification with sensuality.

After this Manu is tossed between his past and his present, now the former depicting before him a lively picture of the earthly charms which were his tyrannical masters, and now the latter trying to wean him from that tyranny by suggesting the dangerous nature of the former. There is a suppressed note of longing for those charms, but he reconciles himself to their loss by thinking that they brought about their ruin through their own wantonness.

चिर किशोर-वय, नित्य विलासी,
 सुरभित जिस से रहा दिगंत ;
 आज तिरोहित हुआ कहां वह
 मधु से पूर्ण अनंत वसंत ?
 छुमित कुजों में वे पुलकित
 , प्रेमालिंगन हुए विलीन ;
 मैन हुई हैं मूर्च्छित ताने
 और न सुन पड़ती अब बीन।
 अब न कपोलों पर छाया सी
 पड़ती मुख की सुरभित भाप ;
 भुज-मूलों में शिथिल वसन की
 व्यस्त न होती है अब माप।
 कंकण कणित, रणित नूपुर थे,
 हिलते थे छाती पर हार ;
 मुखिरत था कलरव, गांतों में
 स्वर लय का होता अभिसार।

* * * *

वह अनंग-पीढ़ा-अनुभव सा
 अंग-भंगियों का नर्तन,
 मधुकर के मरंद-उत्सव सा
 मंदिर भावसे आवर्तन।

* * * *

बिकल वासना के प्रतिनिधि वे
 सब मुरझाये चले गये ;
 आह ! जेल अपनी जबाला से,
 फिर वे जल में गले, गये।

—चिता

He becomes more and more reconciled to his present lot, and describes how the old order gradually yielded place to the new through a cataclysmic change :

अरी उपेक्षा भरी अमरते,
 री अतृप्ति, निर्बाध विलास !
 दिक्षा-रहित अपलक नयनों की
 भूख भरी दर्शन की प्यास !

बिछुड़े तेरे सब आलिगन,
पुलक स्पर्श का पता नहीं ;
मधुमय चुंबन कातरताएं
आज न मुख को सता रहीं ।

* * * *

देव-कामिनी के नयनों से
जहां नील नलिनों की सृष्टि
होती थी, अब वहां हो रही
प्रलय-कारिणी भीषण वृष्टि ।

* * * *

वे अम्लान कुसुम सुरभित भणि-
रचित मनोहर मालाएं,
बनी शंखला, जकड़ी जिनमें
विलासिनी सुर बालाएं ।

देव-यजन के पश्च-यज्ञों की
बहु पूर्णाहुति की उवाला,
जलनिधि में बन जलती कैसी
आज लहरियों की माला !
करका कंदन करती गिरती
और कुचलना या सब का ;
पंचभूत का यह तांडब मय
नृत्य हो रहा था कथ का !

—चिता

The new consciousness helplessly drifted this way and that in the midst of this cataclysm :

एक नाव थी, और न उस में
डॉडे लगते, या पतवार ।
तरल तरंगों में उठ गिर कर
बहता पगली बारंबार ।

—चिता

till it assumed fatal proportions :

लगते प्रबल थपेडे, खुँझले
तट का था कुछ पता नहीं ;
कातरता से भरी निराशा
देख नियति पथ बनी बही ।
लहरे व्योम चूमती उठती ;
चपलाएं असंख्य नवती ।

गरल जलद की खड़ी झड़ीमें
 दूरे निज संस्ति रक्तीं ।
 चपलाएं उस जलधि, विश्वमें
 स्वयं चमत्कृत होती थी,
 उयो विराट बाढ़व उवालाएं
 खंड-खंड हों रोती थी ।

* * * *

उस विराट आलोड़न में, प्रह,
 तारा बुद्धुद से लगते ।
 प्रखर प्रलय पावस में जगमग,
 उयोतिरिंगणों से जगते ।
 काला शासन-चक्र मृत्यु का
 कब तक चला न स्मरण रहा,
 महा मत्स्य का एक चमेटा
 दीन पोत का मरण रहा ।

—चिता

But through this deluge Manu realizes one of the greatest facts of human life :

किन्तु उसने ला टकराया
 इस उत्तर गिरि के शिर से,
 देव-सुष्ठि का ध्वंस अचानक
 इवास लगा लेने फिर से ।
 आज अमरता का जीवित हूं
 मैं वह भीषण जर्जर दम्भ,
 आह, सर्ग के प्रथम अंकका
 अधम पात्र मय सा विष्कंभ !

—चिता

This realization, mingled with the numbness which comes in the wake of our paralysing contact with the forces of death, enables Manu to recognize eternal life in death and through death :

ओ जीवन की मर मरीचिका,
 कायरता के अलस विशाद !
 औरे पुरातन अमृत ! अगतिमय
 मोहमुरध जर्जर अवसाद
 मौन ! नाश ! विष्वंस ! अंधेरा !

शून्य बना जो प्रकट अभाव,
वही सल्ल है, अरी अमरते !
तुझको यहाँ कहाँ अब ठाँब !
मृत्यु अरी चिर-निद्रे ! तेरा
अंक हिमानी सा शीतल,
तू अनंत में लहर बनाती
काल-जलधि की सी हलचल ।

* * * *

जीवन तेरा क्षुद्र अंश है
ध्यक्त नील घन-माला में,
सौदामिनी-संधि सा सुन्दर
क्षण-भर रहा उजाला में ।

—विता

But the unrivalled beauties of the morning are conceived in the darkest depths of the night; and while the forces of death were yet let loose, life peeped through some obscure crevice somewhere and brought with it the enlivening glory of hope :

पवन पी रहा था शब्दों को
निर्जनता की उखड़ी साँस,
टकराती थी, दीन प्रतिष्ठनि
बनी हिम-शिलाओं के पास ।
धू-धू करता नाच रहा था
अनस्तित्व का तांडव चृत्य;
आकर्षण-विहीन विशुद्धकण
बने भारवाही थे भृत्य ।
मृत्यु सदृश शीतल निराश ही
आलिंगन पाती थी हृषि;
परम व्योम से भौतिक कणसी
घने कुहासों की थी बृष्टि ।
बाष्प बना उजड़ा जाता था
या वह भीषण जल-संघात,
सौर-चक्र में आवर्ण था
प्रलय-निशा का होता प्रात ।

—विता

* * * *

उषा सुनहले तीर बरसती
जय-लक्ष्मी सी उदित हुई ;
उधर पराजित काल-रात्रि भी
जल में अन्तर्निहित हुई ।

—आशा (कामायनी)

This is the beginning of the masterpiece of Prasād; this is the beginning of an immortal allegory; this is the morning of human life, the morning which marks the beginning of the most wonderful thing in the entire creation—human life, with its hopes and horrors, with its joys and miseries, culminating finally in that lofty state when it becomes akin to, if not identical with, the highest of the high.

DID CHANDRAGUPTA MAURYA BELONG TO GĀNDHĀRA ?

BY P. S. TELANG, ESQ., M.A.

DR. H. C. SETH has tried to prove that Chandragupta belonged not to Magadha but to the Gāndhāra region. Dr. Seth thinks that the name borne by the dynasty of Chandragupta was a regional name and he has tried to prove, relying on the references of the Greek writers, that the dynasty belonged to the region where stands the hill known as Koh-i-Mor, the Meros of Greek historians, and Meru of Sanskrit. But we have no knowledge of any dynasty in Indian History, which is named after the region in which it flourished. On the other hand, all dynasties are named after the races to which they belonged.

So there is every reason to believe that the dynastic title Maurya was a racial title and denoted that it was the dynasty founded by the Mauryas, who can be taken to be the Moriyas of Pippalivana of *Mahāparinibbān Suttānta*. The Moriyas have been represented to be the Kshatriyas, the ruling clan of Pippalivana. The etymology of the term suggests that it refers to a close forest. The term Pippalivana does not necessarily mean a forest of fig trees as the word *pippal* is associated with any tree and hence the term may be taken to suggest a close forest. There is apparently no reason as to why Dr. Seth understands the term to mean a forest from where मिष्ठली or *ant-gold* was obtained. Now let us locate the site of the close forest which was inhabited by the Moriyas. *Mahāwanśa Tīkā* mentions that Chandragupta Moriya was the son of the King of Moriya Nagara, a town founded by the Śakyas who were expelled from their original home by विशुद्ध, as they retreated towards the Himalayas. Now it is certain that the Śakyas of कपिलवस्तु lived on the river Rōhiṇī near the slopes of the Himalayas. When they were driven out they should have migrated to a region close by, and should have occupied the westernmost part of the Terai of Nepal, thus establishing themselves in the Himalayas, where there were forests frequented with peacocks. Hiuentsang also refers to this place calling it as *Udyana*, which means a garden. The Greek references to the tribe of मेरेय do not seem to refer to the Imperial Maurya dynasty. There might have been local tribes of the same name occupying the Patal Territory, when Alexander invaded India. The Greek references to Chandragupta as the King of Indians who

dwell about the Indus need not make us believe that Chandragupta belonged to the Gāndhāra Region as Chandragupta was the King of the Indians, and the Provinces, now known as the Punjab and Sindh, were included in his Empire, and as only these provinces were known to the Greek writers, they referred to him as the King of this region only. Chandragupta was in the Punjab, when Alexander invaded it (326 B.C.). As we have pointed out above, Chandragupta belonged to the Moriyas of Pippalivan, who were the neighbours of the Nandas of Magadha. In Magadha, there was the monarchial form of Government, while the Mauryas had the republican form of Government, and hence there was an enmity between the two, as the Mauryas could not be subdued by the Nandas. Chandragupta was not related to the Nandas of Magadha but he was a lover of freedom, being a citizen of the Republican State. When Alexander invaded India, Chandragupta must have fled to the north-west frontier region in order to retrieve his fortunes as he could not do anything against the Nandas single-handed. He was a क्षत्रिय lad of twenty and therefore he could suppress the tribes occupying that region with a view to drive out the foreigners (Yavanas) because their strength and potentiality of fighting was weakened by Alexander. Therefore it is no wonder that the tribes, which once put up a stubborn resistance against Alexander, were easily subdued by Chandragupta, after Alexander had left India, as the tribes had no strength left to fight with Chandragupta. Therefore, Chandragupta as an opportunist took the best advantage of the situation created in the Punjab by Alexander's invasion for establishing his hold in the Punjab and Sindh, thus increasing his strength to overthrow the Nanda empire. This was the beginning of his career. Chandragupta subdued the tribes of the Punjab and brought them under his control and leadership, noticing the advantages of Alexandrian Imperialism. He started his activities in the Punjab where the ground was prepared by Alexander's invasion, and when he overthrew the Nanda Empire, he established a completely centralised government of his own with पाटलिपुत्र as his capital. He named the empire after the race to which he belonged, and he located his capital in Magadha, which had the imperial traditions in the past.

It is strange that Chandragupta should have located his capital in the east, if he belonged to the Gāndhāra region, as supposed by Dr. Seth, because the rulers generally like to locate their capital at a central place of their kingdom or in the vicinity of the place to which they belong. The forces of Chandragupta were drawn from amongst the most civilised people of the time, who settled down in the Frontier Provinces of India as a result of Alexander's invasion. The Yavans and Pārsikas, who formed a part of his army were the Greeks and the Persians respectively, who settled down in the

Punjab and on its borders, and who helped Chandragupta to overthrow the Nanda Empire, having been astonished at his dash in subduing the whole province, once over-run by Alexander to no advantage.

The Vāhlikas and Kāmbhojas, who also belonged to his army, were the indigenous tribes living on the borders of India, and known to Pāṇini, the Sanskrit Grammarian, as having their own independent organisation (गण) of a non-political character. The North-western India, with its centre of learning at Taxila (तक्षशिला), was the greatest stronghold of the Āryan civilisation prior to the invasion of Alexander. The Supporters and torch-bearers of Āryan civilisation like Chāṇakya (a native of तक्षशिला) fled eastwards to preserve their culture and avoid contamination with the foreigners. At the time of Alexander's invasion, the Eastern India was being ruled by the Nandas, who were the upholders of Brahmanism.

The Persian influence on post-Alexander India to which references have been made by Dr. Spooner may have been exercised through the Greeks. The defeated Persians must have entered India with their Greek victors. Just as the Persians formed legions in Chandragupta's army, the Persian artists, sculptors and excavators, must have been employed by Chandragupta, when he constructed Government buildings and orchards in Pātaliputra. Chandragupta was greatly influenced by Persian ideals because Persian etiquette was universally acknowledged as the most up-to-date in those days and thus he came into their contact along with the Greeks.

The origin of Pāli, that it is a mixed dialect of पैशाची प्राकृत and मागधी according to Grierson, gives a clue as to why it was associated with the spread of Buddhism under Aśoka. Pāli was the most convenient mode of expression for the people of Western and Eastern India, who formed the subjects of the Mauryan Empire, as the पैशाची प्राकृत was purely the Western dialect and मागधी was purely the eastern dialect. Pāli was a happy blend of these two dialects, which alone could be understood by all the people, the Western and Eastern alike. A similar language, i.e., Urdu, grew up in the fourteenth century as the then most suitable medium of expression both for the Hindus and Mohommadans. It was a mixed language of Persian and Hindustani (Hindi). When people of different languages come together under one government and continue to remain under one government for a period, a common mode of expression springs up automatically.

So it will be clear that Chandragupta did not belong to Gāndhāra but he belonged to Eastern India and was unrelated to the Nandas of Magadha.

He belonged to the क्षत्रिय tribe of Moriyas who inhabited a forest on the slope of the Himalayas, the westernmost part of the Terai of Nepal. The Moriyas were the neighbours of the Magadhas.

When Alexander invaded India, the supporters of Brahmanism fled eastward to preserve thier culture. One of the fugitives was Chāṇakya. As Chāṇakya found that the Nanda Empire was in its last stage of collapse, he became the spiritual leader of Chandragupta Maurya (*Guru*). *Guru* does not necessarily mean a teacher ; it also means a spiritual leader or an elderly person. Just as Rāmadāsa Śri Samartha was a *Guru* of Shivaji, Chāṇakya was the *Guru* of Chandragupta. Chāṇakya had fled from the Punjab due to the barbarities of the Greeks, he must have advised Chandragupta to drive out the foreigners in order to protect the sacred religion, and thus bring the two frontier provinces under his control. Then he must have planned the disruption of the Nanda Empire, because the last Nanda King was not discharging his duties properly. Chāṇakya had come in the Nanda Empire with a view to find Brahmanism flourishing, but to his dismay he found that the Brahmans were insulted by the King and that learning was disrespected as against wealth.

Then he must have decided to help Chandragupta, who came up to his expectations as he drove out the foreigners from the Punjab and established his sway over it. In Chandragupta, Chāṇakya found a suitable king and therefore he placed him on the throne of Magadha. Chandragupta had victorious armies returning from the Punjab and he would have succeeded against the Nandas, but Chāṇakya thought to use his intrigues in his favour and thus avoid bloodshed. As Chandragupta and Chāṇakya both learnt the advantages of a centralised monarchy from Alexander's example as against any other form of Government, they established a centralised Government, with Pātaliputra as its capital after the overthrow of the Nandas. Chāṇakya has often maintained in his *Artha Śāstra* that the king should be the upholder of religion. Thus Chāṇakya gave a religious urge to Chandragupta to be active first against the foreigners, and then against the native enemies of the sacred religion.

We have a series of such examples in Indian History. Rāmadāsa asked Shivaji to stop the Muslim onslaught on Hinduism, thus giving him an inspiration to rise in self-defence. The result was the establishment of the Maratha Kingdom in 1674. Vidyāranya gave the same stimulus to Harihara and Bukkarāya, who under his informal guidance established the kingdom of Vijayanagar in the fourteenth century as against the Bahāmani Kingdom.

SOME MORE WORKS BY "WALI" OF VELLORE

BY GHULAM MUSTAFA KHAN, Esq., M.A., LL.B.

THROUGH the indefatigable efforts, for years together, by my revered teacher Hadraṭ Ahṣan Maṛehravi (the then Professor of the Aligarh Muslim University), the whole work of Wali of Aurangabad has been compiled and then published by the Anjuman-i-Taraqqi-i-Urdū of India. On page 386 of this compilation there occurs a chronogram, giving a date, A.H. 1141 (= A.D. 1729) of a poetical work "*Dah Majlis*," which was naturally supposed by my said teacher,¹ like 'Abdu'l Jabbar Maṛkāpūrī,² to have belonged to the same Wali of *Aurangabad*, because that chronogram was found in several manuscripts which were before him.³ But Mr. Shamsu'llāh Qādirī appears to give a correct judgment in saying that this work, better known as *Raudaṭu'sh-Shuhadā*, belonged to Wali of *Vellore*,⁴ with whom I shall now deal here.

The First 'Mathnawī'

I am fortunate enough to get a very rare and unique manuscript, and, as far as I know, *it is perhaps the only copy existing in the world*.⁵ That manuscript, as I found out, contains a very valuable collection of poetical works by Wali of Vellore. Approximately, its last three-fourth portion contains the well-known 'mathnawi' "*Raudaṭu'sh-Shuhadā*", but its last few folios are missing. The last verse, which is the 26th in the account of Hadraṭ Sihl Sā'ad (of the tenth "*Majlis*") runs as follows :—

شہری سید جامع کے اپر کھڑا تھا ایک پیسوان ستر

With this verse begins the sub-account of an old man, but with it, also, ends our MS. This 'mathnawi' contains ten chapters, each called a "*majlis*",

¹ Preface to *Kulliyat-i-Wali*, p. 78.

² *Mahboobuz Zaman*, Vol. II, p. 1133.

³ About that chronogram and MSS. I will discuss later.

⁴ *Urdu-e-Qadim*, p. 101. I will also discuss it in the next pages.

⁵ I am indebted, for getting this MS., to my pupil and friend Mr. Naimuddin, who brought it

for me last year, and then I gave a chronographic name to it as ریاض الادب ولی و لوری = A.H.

hence it is known as "Dah Majlis" as well.⁶ It was originally written in Persian by Wā'iz-i-Kashifi of Hirāt, who flourished in the reign of Su'lṭan Husain Mirza and died in A.H. 910⁷ (= A.D. 1505). It was translated into Urdu Prose by Fadli⁸ in A.H. 1145 (= A.D. 1733), but had already been versified in Urdu (even much earlier than Wali) by Sewā of Gu'lbergā in A.H. 1092⁹ (= A.D. 1681). After him, this 'mathnawi' (not properly be called an epic poem) was composed by several poets of the Deccan,¹⁰ amongst whom the most important is Wali of Vellore, about whom we are discussing here.

This 'mathnawi', in the manuscript, in question, contains more than 7,500 verses and reads the pen-name "Wali" at several places. For example, the second 'majlis', which gives an account of the death of Ḥadrat Fātiḥa, the daughter of the Holy Prophet, ends with this verse :—

وَلِيْ تُونْ بُولْتْ صَلَوَةَ تِرْمَمْ يَهَاكْ كَرْنَامَهْ دَوْمَ كَوْ نَعْمَ

The fourth 'majlis' thus ends :—

وَلِيْ بَرْكَتْ بَنِيْسَ اسْ نَعْمَ كَفَيَتْ تُونْ كَرْ صَلَوَةَ سَوْنَ نَامَنْهَابَتْ

The last two verses of the fifth 'majlis' are :—

وَلِيْ شَوْدَلَاتْ سَوْنَ مَدْرَسَگَ اَنْكَرْ مَجْلِسَ شَشْمَسَ آَنْبَنْ
چَقْنَ مَجْلِسَ کَرْ كَرَابَ عَذْلَيَ سَنَالْخَلَانَ يَهَاكَ كَفَرْيَيَ

The seventh 'majlis' contains this last verse :—

بَلْ يَوْذَرْ رَكْ صَلَوَةَ كَوْ بُولْ زَيَا اَبْ مَجْلِسَ شَهْرَيَ كَوْلَ

The ninth 'majlis' is thus ended :—

رَهِيَا يَا سَوْنَ اَنْكَرْ مَأْنَوْ دَهْمَ عَبْسَ مَيْسَ سَبْرَدَ كَنَّكَرْ
وَلِيْ صَلَوَةَ پَرْ كَسَلَيَ كَوْ دَيْحَانَ جَهْرَيَ آَخْرَنَ كَوْ

⁶ Since its every chapter is called a "majlis", it became known as "Dah majlis" as well. It is just like "Chahār Maqāla", known after its four "maqalās," although its proper and real name is "Majma'un-Nawādīr". Mr. Hāshimi had once been mistaken in calling "Dah majlis" to be of Wali (of Aurangabad) and "Rauḍaṭuṣ-Shuhāḍā" as of Wali of Vellore. See Maarif dated Nov. 1929, pp. 352-53.

⁷ *Urdu-e-Qadim*, p. 89.

⁸ *Ibid.*, p. 120.

⁹ *Ibid.*, p. 89.

¹⁰ See *Deccan mē Urdu*, pp. 135, 144.

The object in quoting the above verses, is to show that Wali is, in fact, the writer of this 'mathnawi', as contained in our MS. Mr. Shamsu'llah Qādīrī has copied out the headings of "Raudatu'sh-Shuhadā" from Dr. Ethe.¹¹ When I collated them with those of this MS., I found them quite identical. Similarly, he has also selected 29 verses of Wali (of Vellore) from the third 'majlis',¹² which, too, on collation with those of this MS. appeared to me exactly the same. Furthermore, the name of the 'mathnawi' as given in our MS. is also the same, i.e., "Raudatu'sh-Shuhadā". Hence it is proved that the 'mathnawi' of our MS. was composed by none except Wali. But which Wali?—This I will discuss later.

The Second 'Mathnawi'

Our MS. contains, in its first quarter, another 'mathnawi', but its first few folios are missing, and I think they were not more than three. The reason is that the scribe has fortunately given the total number of verses on each and every page (each page containing sixteen verses), hence we can safely know that (a) not more than three folios are missing; (b) the missing folios had 76 verses in all, and (c) the total number, as contained in the last page of this 'mathnawi', is 2240. After the missing lines, our MS., which I could read with great difficulty, thus opens :—

میمار تاق ہو ز بخشندہ جہاں
..... توں ارہنار ۳

کے فوج بیت سوی خوش	بے مارف توں پستش
نشان مارف کا ہے مشروہت	محبت کی نافی ہے عجائب
پرستش کر مسیری تاہو سے بنیاد	کما شن کوں اڑل بکوب کا یاد
ہوا شنڈل دیں او نیک نای	ہزار سترہ برس اندر قیای
سٹیاک قبضہ نور از نور ذاتی	ہر آن اوزار ذاتی و صفاتی
دو نوراحدی سجدہ بجالائے	تجہ ہور نظر سوں نیشن حقی پائے
غاز سبیع اس سجدہ بدل قرض	ہوا اس پر ہو راس است پرہنی
بھی اٹھ سترہ ہزاراں برس دیگر	کھڑیا خدمت میں او نور ملٹر

¹¹ *Urdu-e-Qadim*, pp. 101, 102.

¹² *Ibid.*, pp. 45, 46.

Mr. Nasceru'ddin Hāshimī has also given verses from that 'Mathnawi' in his book "*Europe mē Deccani Makhlūqāt*," pp. 356-64. Some of those verses I collated with those of the MS. in question, and found exactly the same. But I can safely say that this MS. is far better than that which was before him. Unfortunately, a minute collation of them is beyond the scope of this essay.

جو زر خاص حق سوں پا کو خطلت
کیا ہے سجدہ ثانی تھیت
نماز نظر ہو بھی فرض اس پر
ہور آن کی استاد اویں صادر
کئے ہیں پنج تیام اور ہی رات
سوپاٹے پانچ حق سوں یو عطیات
جواب ہمود ہے سب پر موقت
کئی دن سوں ہے بنیاد سعادت
چھاسی الف برہاں جب ہو پر
حکم آیا وہ گانہ کا آس نور
بھی تکمیل تحریریہ الف سال
آسی دن توں ہر کیک ارکان کا حامل
رکوع و سجدہ قدرہ باقیا مان
کہ توہہ ہور جلہ، باسلام

These are the sixteen verses of the opening page of our MS. The ending lines and the colophon of this 'mathnawi' are as follows:—

دراع کر ایک یک خوشاب دیا گے
مدینہ پھر ملے مرسل جہاں کے
کہ جانے میں ہوا آزار آغا ز
کے کوچ آخریں کی تیس سرفراز
بیان در روضۃ الشہد میں ارتقا
ہوایاں روختہ الائوار ا تمام
در دراں میں ہزاراں لکھ دادم
ہو انتصیف اس کا بھرمن سوں
جی کے باغ دیں میں بیج لے توں
بیچ الارضیں بیت یک کم ہوایو نور کا نامہ مستم
چار شنبہ بتایج ۱۹ شہر ربیع آخر ۱۱۵۹^{۱۸}

By reading the above lines we come to the following conclusions :—

(1) The third verse shows that the writer of *Rauda'lu'l-Anwār* is the same as that of "Rauḍa'lu'sh-Shuhadā".

(2) The chronogram in the fifth verse, and the last two lines show that the 'mathnawi' "Rauḍa'lu'l Anwār" was completed on Wednesday, the 19th of Rabī' II, A.H. 1159 (= 30th April A.D. 1746).

(3) In spite of the fact that the first two verses, given above, may become a link to the forthcoming account, yet the third verse shows clearly that the 'mathnawi' "Rauḍa'lu'sh-Shuhadā" had then already been completed, otherwise the writer's reference about it would have been absurd. Moreover, the verb "hu'a" in the second hemistich of the third verse is common for both the hemistiches. The chronogram in *Kulliyāt-i-Wali* also shows that "Rauḍa'lu'sh-Shuhadā" (or "Dah Majlis") was already written in A.H. 1141^{۱۹} (= A.D. 1729).

^{۱۸} *Kulliyāt-i-Wali* (of Aurangabad), p. 386. I will discuss it later.

(4) From the words *Rauda'ū'l-Anwar* in the third verse and "Nūr kā Nāma" in the sixth verse, it appears that this 'mathnawi' contains, as is the fact, the account of the Holy Prophet's Light and life. The opening lines of the MS., as already copied out above, also refer to an account of the birth of the Holy Prophet's Light, although its first 76 verses are missing. It is just possible that out of these missing lines, the thirty-one verses of the first portion of "Mathnawiyāt"¹⁴ in "Kulliyāt-i-Walī," and also atleast the last three, if not all, verses of its second postion,¹⁵ might have once formed part of our 'mathnawi' *Rauda'ū'l-Anwār*. The reason is acceptable, because, realising the account of the Prophet's Light in the said mathnawi, the rhetorical device "Bara'aṭu'l-Iṣṭihlāl" (common for a 'mathnawi') is found in the first verse of that 'mathnawi' portion of *Kulliyāt-i-Walī*. It runs thus :—

اہلی دل اپرستے مشق کار داغ بیش کے نین میں سٹک مل ازانے¹⁶

The metre is also the same (*i.e.*, hazaj musaddas mahdūf). My revered teacher Ḥadrat Ahsan's supposition, that these lines might have been a 'preface' to some 'mathnawi' *Dah Majlis*,¹⁷ does not appear to be correct, in view of the fact that "*Rauda'ūsh-Shuhadā*" (or "*Dah Majlis*") thus begins :—

اچھوں تامیں فضاحت ہیں مفرزار	کروں ناچے کوں بیہم شد سوں آناز
بندیاچودم کے رشتہ سوں بدیں بیا	سراروں کی لئے جن کیک سخن بیں
لکھیں ایس کوکار درست تدیر	لکھیں ایس کوکار درست تدیر
بچرا کر دو کر تابع سوں نام	نکل کے ہاتھے خورشید کا جام
رکھیا لاؤں میں انکھیاں کوچ دو	بانیں کے محل پر طاق ابرو
لگایا جگ میں چنگاری تذریک	دیکھائے پنچ پار کی ہمندر کی
لگایا شاخ قن سوں کل ہن کا	لگایا شاخ قن سوں کل ہن کا

and so on.

Although the 'mathnawi' "*Rauda'ūsh-Shuhadā*" does not contain the rhetorical device "Bara'aṭu'l-Iṣṭihlāl", but Walī's third 'mathnawi' *Rauda'ū'l-Uqba*, which I shall discuss next, does contain it. This third mathnawi, as its name denotes, deals with the Resurrection, Day of Judgment, etc. With "ḥamd" it begins thus :—

بختنہ مسرا کا مفتریت سوں .....	..... ہارا جزا کا آخرت کوں
..... اوزن خناست .....	..... ناصیان کے نیں امیدافت

¹⁴ *Kulliyāt-i-Walī*, pp. 376-79.

¹⁵ *Ibid.*, p. 383.

¹⁶ *Ibid.*, p. 376.

¹⁷ *Ibid.* (Preface), p. 70, and foot-notes to pp. 379, 383.

These verses also point out that rhetorical device. Anyway, no definite opinion can be given about those missing verses, unless some other copy of the MS. is traced somewhere.

As it is beyond the scope of this essay to give a summary-account of our second mathnawi *Raudaṭu'l-Anwâr*,¹⁸ I will here give merely the complete list of its headings. I have already pointed out that its opening lines give an account of the Holy Prophet's Light. After it, the accounts have been given under the following headings :—

For a further specimen of the language of this mathnawi, I would refer to the account of the thirty-sixth miracle of the Holy Prophet :—

طلب دھر جبزہ کا جو کویک دل
 سوہنہ کر منعنی دل یکیں ہوں جو زدیک
 بخوبی پر تینیں تسبیح کروں پاریں
 کئے دیو جبزہ اس سرخ فی الحال
 توں انکھ کر دے گو ابی آنکھ پر
 کہیاں اپنے رسول انتہ محدث
 قبول دون اس کا سبب متعین رک
 ہوئے سب فیض منداہان ہائی
 بج کے باس آئے کافیں مل
 موایے آستین میں کوئی چوڑا یک
 بھے گرفت بدی ہم اس کوں پاریں
 دنے استین سوں بلکہ منی ڈال
 بخی فرست اس کوں لے جناور
 خدا کے حکم سوں دو انکو ویں تد
 پہنچتے اس انتہ کاہے یوئے شک
 دوا جیوان مردہ جب گو ابی

¹⁸ In the Rampur State Library there is a Persian mathnawi of this name by Khuajoo Kirmāni.

A critic, on comparison of the language of the two mathnawis "Rauḍaṭu'l-Anwār" and "Rauḍaṭu'sh-Shuhadā, can easily understand that both of them must have been composed by one and the same poet.

The Third 'Mathnawi'

In the margins of the folios, containing the mathnawi "Rauḍaṭu'l-Anwār, there is written another mathnawi "Rauḍaṭu'l-'Uqba," but those margins are so much spoilt and defective that it is very difficult to make out its verses. Anyway, I shall try my best to quench the thirst of knowledge of the literary people.

This third mathnawi thus begins :—

.....	.....	ھو اللہ اسیع الہی و تادار
.....	.....	ہو الجبار و تبار و مسلط
.....	.....	مجنده سزا کا مفتر سوں ہل راجڑا کا آضرت کوں
.....	.....	..... فے اذن شفعت ناصیاں کے تیں امید جنت
.....	.....	..... میر اعلیٰ تجھ پر ہے اس حد توں محمد
.....	.....	کوئی لی دو نجیں بہند ہنودیں گے بخیٰ ہر گز رضامند
.....	.....	..... تحقیق اس شیعہ المدین کا کوں آسرادیا دریں کا
.....	.....	دروداں اُن پر ہر دم میزبان آں محاب کامل چار باراں

Its last verses and the colophon are as follows :—

ایہی توں الجہنیا در دنا	یوری شفیق نیت پر ہونا
کیا تالیف یوں مختصر تال	ترے مجبوت بخیر کا احوال
سو حال آفرت سب سیسا لایا	نشک خوف در جیاں کرنا یا
و غید و عده لایا ہوں جمع کر	و حید اس کوں شوریں مدد پہنچا ہر
کیا ہیں فاری کوئی میش طوم	کو تاہوئے ہر کیک کوئی ت ملجم
ایہی تو ہے غفار و عطا کوش	صفیعیاں کا غلط سہو و خطا پوش
کتاب طلحہ الانوار سوں دیک	کیا ہوں تو دکاں ان نسوانیک
کر کیک ہے رونمہ الانوار دل	دو یم بور و رضا بحقی
ایہی نے گھنیاں کے تین اوق	پڑھنا رہنہاں کوں ات نزنا
لکھے اس کوں پڑھنے سکرنا دار	کہ اس نوکے تیر شہرت میں لاو

بے پر دل پر ہر کیکا نہ صرف کوں کے قل قاتمیاد
 لپکا کاندھ پوچھے تو تایاست صرف کا قل دامن جبرت
 گیارہ سو بیس ہجھڑاں تے کم ہیں ہون فصل کا تھاں جاں
 ہزار اوپر تسلیم پنجاہ ریاست دو یہ تایع ذی الحجہ کی جبرت
 ہوا یاں رونتہ بقیٰ تماں دل اسٹر بوصڑا و مسلمان
 شست تامہ شد کارن نظاہ شد
 دو یہ ذی الحجه^{۱۹} تھوڑی - روز بیخ شبہ^{۲۰} فصل
 چار ساواں سوچ کر درہشند کوار گوئند ۱۵

By reading the above lines we understand the following five points :—

(1) The seventh and eighth verses show that just as the writer of "Rauda'ūsh-Shuhadā" and "Rauda'ūl-Anwār" is the same (as proved above), similarly, the writer of Rauda'ūl-Anwār and Rauda'ūl-'Uqba is also one and the same person, i.e., Wali had composed all these three mathnawis.

(2) From the fifth, seventh and eighth verses it also appears that the two mathnawis (Rauda'ūl-Anwār and Rauda'ūl-'Uqba) were based on the Persian book *Maṭla'ul-Anwar*.^{۱۹} This statement is further strengthened when we read the mathnawi "Rauda'ūl-Anwār," wherein the lines just before ذکر ابداء و می پیغیسر are as follows :—

رہی اول رحضرت نا طاکی
 ملٹ او مرداں رہنمائی
 یوسف از مطلع انوار مرتوم سیر عبدالاول سوں جو نے معلوم

(3) We understand from the thirteenth and fourteenth verses and also from the colophon that the mathnawi Rauda'ūl-Uqba was completed on Thursday, the 2nd of *Dhu'l-Hajj*, A.H., 1162 (= 2nd Nov. A.D. 1748) or Faṣli 1159 (on the 4th of the Indian month Kūwār), i.e., *three years* after the completion of the mathnawi Rauda'ūl-Anwār, as proved above.

(4) From the fourteenth verse it is obvious that this third mathnawi contains 1,350 verses.

(5) In presence of the three mathnawis (Rauda'ūsh-Shuhadā, Rauda'ūl-Anwār and Rauda'ūl-'Uqba) we understand that Wali, mostly, led a religious life or atleast had much religious tendency.

^{۱۹} *Kulliyat-Wali*, *Damima I*, p. 6, shows that there was some mathnawi, of this name, by 'Urfi as well.

It is *just possible* that this manuscript, being perhaps the only one existing in the world, was written by Wali himself, because of the following reasons :—

(a) Wali has given the dates and details of the completion of mathnawis in the last verses, but again these details, *also containing Faṣlī and Indian date*, are found in the colophon. This shows that the writer of the mathnawi himself wrote the colophon.

(b) The words "تہت تامد شد کارِ من نظام شد" , which are found in the colophon, are generally used by none except the scribe himself. Similarly, the name of the scribe, as is found in almost all manuscripts, is not here in the colophon. This automatically means that the scribe is not other than the poet himself. This supposition is further strengthened when we see a *signature*, just preceding the colophon of the mathnawi Rauḍaṭu'l-'Uqba as quoted above, which most likely reads as "Wali".²⁰

Now I give a list of the headings of the mathnawi Rauḍaṭu'l-Uqba in the following :—

حیون خدا. فتنت بھی و منابع خلائق می را شدین ۴. بیان سکرات موت . بیان قبر . حکایت بخشیل
 ذکر تیات . ذکر امام جدی طیلیہ السلام . ذکر دجال . ذکر حضرت مسیح صلوات اشرطیہ و علیہ بنیاء و السلام
 ذکر خروج یا جو بخود ابوجوہ . ذکر نوت سیمی صلوات انشدی بنیاء و علیہ . ذکر قیاست و فتح صور و اصحاب
 مومنات و حشرت قیام . ذکر خروج دایتہ الارض . ذکر طرع شمس از مغرب . ذکر معادیت و محاسنہ و ایضاً
 مومنان از کافران . ذکر منافقان و کافران . احضار سیمی بین مردم و پیغمبر و فشاری . ذکر دیگر .
 ذکر دروغ و پل صراط و گذشتبن مومنان و ائمدادن کافران در ایا ذکر تعذیب عصاهة .
 مومن و شفاعت ائمیا و رسول و ملئک . ذکر دخول جنت و در جات مومنان²¹

For the specimen of the language of the mathnawi Rauḍaṭu'l-'Uqba, the verses, quoted above, are themselves sufficient, but here I give some more

²⁰ Besides the said mathnawi, the whole manuscript sometimes contains *corrections and additions* of *FULL* verse or hemistich, and this cannot be done by the scribe but by the poet himself. Moreover, the paper of the MS. appears to be as old as about 200 years ; hence it must have been of the time of Wali. It is also to be noted that the paper, on which the first mathnawi Rauḍaṭu'sh Shuhadā was written, appears to be much older in age than that of the other two mathnawis, and this is a fact that the former mathnawi was composed much earlier than the other two. Hence, as it is obvious, the first portion of the manuscript, which contains those two mathnawis was attached, later, to the already-completed mathnawi Rauḍaṭu'sh-Shuhadā.

²¹ The language of these headings as well as that of the headings of "Rauḍaṭu'l-Anwār," as noted previously, belongs to the poet himself. Hence I should not be held responsible for any defect in it.

verses, which I could make out in the rotten and much defective margins of the manuscript :—

وکرامہندی

فهوہ ہدی آخہ زمانی
دو ختم الادیسا سدھنافی
و عبد الشہ بھوئے نام پر بھے
(و) مادر ایسہ نیکو سیر ہے
لہور کتے بیس مر چین سالی
مدینیں تولہ زوال الغشائی۔
جاہوت ہو دین گے دو ابرار
سو جایت المقدس میں ہو بیار
کث وہ چشم ابرو دو کافی
کوہ پاریک ہو دین فرق دنداں
سو گندم و نگ سرمہ چشم دخداں
مورخ رہ اپریک ہوئے گا خال
چنگ زانوٹے چب پر ماریں نماہات
چنگ بر گزند آؤے کچھ کوں بات
کو جوں حضرت گوں حقیقہ بہر بہوت
سو بارا سو برس سہرت سوں پورا
جادہ سہت پو لا دین کرو اشارت
عنایا خیر بسد از دن غشورا
شہیں کے معجزہ ان سوں کرامات
درخت سبز ہوئے خشک ڈالی
معزوب قدسیاں (ان کی) مدد کر
رہے گا ابر کا سایہ آن پر
ملائیک تھڑاں لے کو جبریل
سو آواز بلند اس اپریوں (آئے)
کو مشرق ہو رغبہ دو دنابجائے
کرو بہت سب اسکی دل وجانی

Which Wali composed these three 'mathnawis'?

Hitherto it has been proved that these three mathnawis (viz., Rauḍaṭu'sh-Shuhadā, Rauḍaṭu'l-Anwār and Rauḍaṭu'l-'Uqba) were composed and even personally written by some Wali. Now we should see which Wali had composed them. For this purpose we will have to turn back again to the mathnawi Rauḍaṭu'sh-Shuhadā. It was believed by certain scholars, e.g., 'Abdu'l-Jabbār Mālkāpūri, Ḥaḍrat Aḥsan Mārehrawi, etc.,²² that the mathnawi Rauḍaṭu'sh-Shuhadā had been composed by Wali of Aurangabad; and they were justified in making such conclusion, because the various MSS. (of the

²² See the foot-notes Nos. 1 and 2.

poetry of that poet) which were before them, contained the chronogram, giving the date, A.H. 1141 (= A.D. 1729). Dr 'Abdu'l Haq has also added to the *Kulliyāt-i-Wali* (of Aurangabad) an appendix, which gives the different readings of that '*diwān*'. That appendix, also, does not give any variation about that chronogram. Hence, it means that all MSS. (about 16 in number) which were before Hadrat Ahsan and Dr. 'Abdu'l Haq, contained that chronogram. But this addition to the *diwān* of Wali of Aurangabad, appears to have been made by the scribes who were mistaken, and could not distinguish between the two poets of the same name and pen-name. The mistake can be easily discerned by considering the following points :—

(a) No *diwān* of Wali of Aurangabad, that is found in any library of Europe, contains that chronogram.²³ Even the oldest *diwān* written in A.H. 1144 (Blumhardt's *Catalogue of India Office Library*, No. 113) does not contain that chronogram.²⁴

(b) The *diwān*, copied out by Muhammād Taqī, the son of Sayyid Abu'l Ma'ālī (the friend of Wali of Aurangabad), also, does not contain that chronogram ; and there can be no authority better and more reliable than this.

Hence, it is proved that the said chronogram, giving the date of Rauḍaṭu'sh-Shuhadā,²⁵ was added by mistake to the *diwān* of Wali of Aurangabad, because that *mathnawī* was composed by Wali of *Vellore* and the reasons are as follows :—

(1) Mr. Shamsu'llah says that he has seen a manuscript of the *diwān* of Wali (of *Aurangabad*), which had been written on the 5th of Jamādī I, A.H. 1143 (= A.D. 1730), and that its colophon contains these words :—

تَمَّ شِدْرِي وَرَانْ وَلِي رَحْمَةُ اللَّهِ²⁶ = (Here) ends the *diwān* of Wali. (*May the peace of God be upon him.*) These (last) words cannot be used but for a dead man. Hence, it is obvious that Wali of *Aurangabad* had died before A.H. 1143 (= A.D. 1730) when that MS. was written.

We have seen in the previous pages that Wali composed the third *mathnawī* Rauḍaṭu'l-'Uqba in A.H. 1162 (= A.D. 1749), i.e., this Wali lived

²³ *Europe mē Deccani Makhtūtāt*, p. 495.

²⁴ *Ibid.*

²⁵ There is a difference of opinion about the date of the completion of Rauḍaṭu'sh-Shuhadā. As far as the chronogram is concerned, the date must be A.H. 1141. But Mr. Hāshimī has given its date as A.H. 1130 (see *Europe mē Deccani Makhtūtāt*, p. 354), as he found it in certain MSS. I think that Wali of Vellore must have completed it by A.H. 1130, but again revised it in A.H. 1141 ; and thus wrote that chronogram separately.

²⁶ *Urdu-e-Qadim*, p. 109.

at least upto the year A.H. 1162. Hence, that Wali of Aurangabad, who had died before A.H. 1143, cannot be the author of this third *mathnawi*. Consequently it means that Wali of *Vellore*, and not of Aurangabad, had composed all the three *mathnawis* *Rauḍaṭu'sh-Shuhadā*, *Rauḍatu'l-Anwar* and *Rauḍaṭu'l-'Uqba*, because we have already proved that one and the same person was their author.

(2) Mr. Shamsu'llah had once²⁷ given a summary of Blumhardt's *Catalogue of Hindustani MSS. in the India Office Library*. Therein we find that the scribe of a *dīwān* of Wali of Aurangabad is Sayyid Muḥammad Ṭaqī, the son of Sayyid Abu'l-Ma'ālī, with whom Wali of Aurangabad had gone to Delhi, Sarhind, Gujarat, etc. The colophon of that most reliable *dīwān* so runs:—

”تمت تمام شد۔ دیوان مفتخرت نشان ولی مخدوم و میرزا مرتضی کن۔ تاریخ دویم شہر زی قده ۱۱۵۶ھ
روز بیج شبہ بوقت سمع تحریر یافت۔ مالک و کاتب این دیوان عاجز اذنوب محمد تقی ولد سید
ابوالعلی است۔ کے کہ دویی کن باطل است“

This shows that at the time of the completion of the MS., i.e., on Thursday, the 2nd of *Dhilqa'da*, A.H. 1156 = the 8th December A.D. 1743, Wali Muḥammad (being the most reliable and correct name of Wali of Aurangabad) had already died, otherwise the word "marhoom" would not have been added to his name. So, even if Wali of Aurangabad did survive by the year A.H. 1155²⁸ (= A.D. 1742), it is sure, because of the above colophon, that he had died by the following year, i.e., A.H. 1156. But we have already seen that a certain Wali²⁹ wrote the *mathnawi* *Rauḍaṭu'l-'Uqba* in the year A.H. 1162 (= A.D. 1749). Hence, it is clear that the author of this *mathnawi* must have been other than one who died by the year A.H. 1155 (= A.D. 1742). This, eventually, means that *Wali of Vellore* was the author of this *mathnawi* as well as of the previous two *mathnawis* *Rauḍaṭu'sh-Shuhadā* and *Rauḍaṭu'l-Anwār*.

The Fourth 'Mathnawi'

Besides the above-mentioned three *mathnawis*, there is another *mathnawi* "Raṭan-wa-Pādām," believed by Mr. Shamsullāh to have been written by Wali of Vellore.³⁰ Both he and Mr. Hāshimi have followed Dr. Springer's

²⁷ Urdu, dated October 1928.

²⁸ *Mahboobuz Zaman*, Vol. II, p. 1133, and Preface to *Kulliyat-i-Wali*, p. 14.

²⁹ In *Uurdu-e-Qadim* (p. 105), there is one more Wali of Bijapur, but no authority has been quoted. Hadrat Ahsan's statement about him in the Preface to *Kulliyat-i-Wali* (pp. 88-89) seems to be correct when he is not traced in European libraries.

³⁰ *Uurdu-e-Qadim*, p. 101.

statement.³¹ I do not think that this (fourth) mathnawi was ever written by Wali of Vellore, because of the following reasons :—

(a) Mr. Shamsu'llah says that the opening line of this mathnawi is as follows :—

خداوند پر کب پورا نہیں آتا روا آپنی آوار

The metre of this verse is ‘*muṭaqārib, muthamman, maqsoor*’. Out of the other nine verses of the same mathnawi, as he has quoted, here are the two, which, according to him, contain the pen-name of Wali :—

لایتے کرم کی بچی جس نکاش آس سوں بگز نہیں
دل ہے وسیب نالی پہاڑ اشی کام ہے دنیا دنیا³²

The metre of these verses is ‘*hazaj, musaddas, mahdhūf*’, i.e., quite different from that of the opening line. A poet, like Wali, who composed from 11–12 thousand verses, cannot be expected to commit such blunder. I admit that. Wali has committed many mistakes and has various defects in the feet of the verses, but he can never be charged of using two different metres in one mathnawi.

(b) The two verses, quoted above together, are believed by Mr. Shamsu'llah to contain the pen-name “Wali”, the word with which those two verses begin. I think it is never “Wali”, but “wale” (= but), because if it is “Wali”, then the translation of the first verse will be :—

“O Wali, I expect thy favour, so don’t make me despondant.” A poet does not address himself in this manner. In that verse the address is surely to God and not to the poet himself. Similarly, the second verse may be safely believed to contain “wale” and not “Wali”.

(c) We have already seen that Wali (of Vellore) spent most of his life in composing those three long mathnawis “Rauḍaṭu’sh-Shuhadā, Rauḍaṭu'l-Anwār and Rauḍaṭu'l-Uqbā,” i.e., he had mostly a religious tendency. For such a person it is very difficult to make himself write a mathnawi of love affairs as “Raṭan-wa-Padam.”

Anyway, the said scholars ought to have studied that *mathnawi* critically, because they are amongst the responsible authorities of Urdu literature.

³¹ *Europe mē Deccani Makhṭūṭat*, foot-note on page 135.

³² *Urdu-e-Qadim*, p. 101.

The Sect of Wali of Vellore

Originally, the 'Shiā' and 'Sunni' sects of the Muslims were not more than the two political bodies, but, later on, they were separated by the juris-consults in some religious beliefs as well; and this was a great misfortune to the community, which, thenceforward, began to suffer much due to the mutual differences. But I am not concerned with these things. I discuss this topic merely because Mr. Hāshimi says that Wali of Vellore was in the "Shia" sect.³³ In reality, it is not so. He (Mr. Hāshimi) also believes that Wali wrote the mathnawi "Raudaṭu's-Shuhadā" when he was not yet employed by the ruler of Sadhot.³⁴ Hence, there is no possibility of any religious influence of the Court on Wali, when he was composing that mathnawi.

Mr. Hāshimi's statement, that Wali was a *Shiā*, is refuted by himself, when he says that he (Wali) believed in *mysticism*,³⁵ because both these things are contradictory to each other. Though this may not be true in certain cases, yet Wali's *Raudaṭu'sh-Shuhadā*, just before the beginning of the fifth 'majlis' has the following verses:—

ہوئے تھیں جز بی و دبے ریائے کئے کوت سیاہ و ماتھی کا ان اُن کا ہوا تھا بر دنو مگے چڑا خپر شہر شہرت میں لائے کجس گھر یوریں ہوئے دو گھر خوار ندوں پایاں خود دنیا کوں پایاں اول مویہ شہزادیاں کے گھر جائیں جلوس ہوا پلی رومنہ تلک آ	حن ثبک ٹھی گزر سشن سویانے مونچا بازار ہاجی منع فرماء کئے ٹھرت ڈھن کا بن، ان لگے در دوت ہو رجده کوں بلکے سو دو نو کوں کے سنگاریک بار دنیا کے واسطہ دیں کوں گھنڑیاں گھبیتے دفت بی شرب کوں جب آئیں مل ان سوں ہادب گھونڈیا پوس لا
کریں اُن کی نظر کچھ مال و زر کوں یو ظاہر ہادب ہیں دست بستہ لیا ہے ملک اُن کا تابی ہو رخخت کمر ہس کمر و فریب و من کوں یہی مدد گان بد صاحبی پر سخائز ہمیں بد نظم ہونا کہ ناکسی میب	زیارت کر سو پھر اس پر ادین گھر کوں کہیں بھئے یو فن چند نہ دستا اُن کے بآپ کوں دی بخت سخت بھی کرتے ہیں یو ظاہر کی خوشامد عقیدہ یو کرے ہو ہے روافض وہی ہے مالک دل عالم اذیب

³³ Europe mē Deccani Makhīyat, foot-note on p. 354.

³⁴ Ibid., p. 355.

³⁵ Ibid., p. 364.

Apart from these lines, Wali has praised the four pious Caliphs at some other places also. Unfortunately, Mr. Hashimi did not study Raudatū'sh-Shuhadā thoroughly, otherwise this mistake, about Wali's sect, would not have been committed by him.³⁶

Several times in the second mathnawi *Raudatū'l-Anwār* we find the praise of the Caliphs, e.g., on Omar's conversion to Islam:—

سودی جب سب لے آئے بن پیا
کہے جب یا بھی تمنا ہے اعلام
سلامتی کہو حضرت عمر کوں
چے ایماں اسکا شادی بخوبی بگوں
ہے شاداں بلکہ سب ابل ٹوات
پڑے جہل یو فرنند ڈایات
یا ایماں الی حبیک املا ہی من ابعاث من المعنیت
نکل آبھارو ویں حضرت عمر تب
کہے ابل قریش دشہر میں سب
بنی کی میں نلای میں جواہ
اگر دیکھے کا کوئی آنک آچا اب
خال آنک اسکی ویں اش شمارا و
تم پر مصطفیٰ کے جیکوں واروں
جھانے میا زاداں کا ہو پکارا
جماعت ہورا اذاداں کا ہو پکارا
بتوت سوں شے تھا یا چارداں سال
بتوت حضرت عمر نبو و ولت ایصال

As it is beyond the scope of this essay to give several quotations from the same mathnawi, so I pass on to the third mathnawi *Raudatū'l-'Uqba*, wherein he again appears to praise like a Sunni in the following verses:—

در درداں ایش پورہ روم جب بزاراں ایں اصحاب کامل یار یاراں
اول افضل ایہ بوجہ محمد یعنی وجوی عادل عمر ناروی تحقیقی
تجوی عثمان جیا ہور حمل کی کھان بیرون تھے شیخہ بیزداں شاہزاداں
کو حضرت فاطمہ بنت پیغمبر شہید کر بلا یغداد و دو قن
دو فرزند اس شہی صیف سرور جو راجنی ہے سدا ان شاہزادوں
بنی کے آں اماماں دوازدہ ہیں ہر کیک شہزادی دیں ہادی روہیں
شپنگلست کوں اصحاب ایسا ہیں بھیر چنان اس کا ہے حب آں پیغمبر
تو ہواب پیر دامحاب اکرام کہ آخر آں پینتیس سوں ہے کام

³⁶ He again appears to be careless in quoting verses from "Raudatū'sh-Shuhadā" in his another book *Deccan mē Urdu* (Second edition, pp. 135, 136, 144 and 145). Therein he believes that his mathnawi was composed by several later poets as well. Out of those few verses which he has quoted from two different poets the following two are common:—

چلا شے پنی وہ جب شاہ فیرب چکہ پر کا پنے ارش و سما سب
بوفی داں سکرڈوں لاشوں کی لیا ر چلانے جب گئے اسما پت رار

Such carelessness is not desirable.

These proofs have been given just to correct the historical mistake of Mr. Hashimi.

Further Importance of the Manuscript

It has already been stated that the first three folios of the MS. are missing. In continuation of those missing folios there is another mathnawi "Pand-Nâma" written on the rotten margins and finishes on the margin of the fifth folio. The last verses are as follows:—

(زصد) مولیٰ اسلام پندرہ تام	پندرہ تام عذاب
پندرہ تام عذاب	.....
.....	لے بھرنگ یا جو کون اور کچھ اپنے
لے بھرنگ یا جو کون اور کچھ اپنے	کر کوئی اس کو پڑے گا تم تو دوسرے کا ہے آپنے ہیں کو خرام
.....
.....
دکسن کار کیتا شتاب	بچھی فارسی ہے کتاب
پیا سو پاؤے کیا آرسی	جو کوئی سخن فارسی
ہو یاں سو اپر پانچ بیان تام	زصد ق محمد علیہ اسلام
اتھاسال بھری اسے بک بزار	ربع الاولیا مادہ دن ایوار
سوتیلہ مرتب بنوا ہے کلام	تھرفاں کی دین جگہ میں قام
مر کے مبنی مشتری کے	قصہ یوکی ہوں مبارک

۲۶ رمضان ۱۱۶۷ھ

۱۲

The margin is so much defective that it is very difficult to make out complete verses. But we can gather from the above lines that (a) the name of this mathnawi is "Pand-Nâma" (which gives religious advice); (b) it was rendered from Persian into the Deccani Urdu; (c) it contains 105 couplets and (d) it was completed on Sunday, Rabi' I, A.H. 1000 (=A.D. 1592). The signature is again most likely appearing as "Wali" who copied it, completely, on the 12th of Ramadân, A.H. 1162 (= Tuesday, the 15th August A.D. 1749). This mathnawi, obviously, does not appear to have been composed by Wali who lived even after completing the mathnawi *Raudaṭu'l-Uqba*. I think it might have belonged to some of Wali's near relatives or friends or one for whom he had any regard, otherwise he would not have copied it there.

There is one more 'mathnawi' "Asāsu'l-Muṣallā" in the margins and it contains 700 verses. It has dealt with the rules of the 'prayers'. The last lines of this 'mathnawi' are as follows:—

اساس المصلحتی ہو اسے تھام
 بھی پر درود عالی کہو دا مسلمان
 کیا اشتیاقی نہ رکھی اسے
 سمجھ آئے گریب یو ہر کے
 سہنسرو چھا احسان جب
 مرتب ہڑا یور سال سوتھے
 ۲۱ رمضان دو شنبہ ۱۷۵۰ ہجری

These lines show that the 'mathnawi' "Asāsu'l-Muṣallā" was composed by Ishṭiyāqī, a poet who is not known in the biographies of Urdu Literature. The date of its completion, as indicated in the third verse above, was A.H. 1004 (= A.D. 1596). The presence of "Wali" 's signature in the last line shows that he was alive at least upto the year A.H. 1163 (= A.D. 1750.)

REVIEW

Annual Report of the Archaeological Department, Baroda State, for 1937-38, published by the Government of Baroda, Price Rs. 2-4-0.

THE Archaeological Department of the Baroda State has been doing valuable work under the direction of Dr. Hirananda Sastri. The present *Report* describes the activities of the Department for the year 1937-38.

Of the temples conserved during the year that of Ráma at Bardia, a hamlet of Dwárkā, which is illustrated in Plate II, is very interesting. It is a beautiful specimen of mediæval Gujarat architecture, its simple plan not being overburdened with profuse ornamentation. In connection with the superbly carved Híngloji Mátā temple at Khandoran, the Director discusses the question why obscene figures were used for decoration in mediæval Indian temples. Such sculptures are seen on some temples in our Province also, e.g., on the Bhaváni temple at Bársi Tákli near Akolá and the Śiva temple at Páli near Ratanpur. The Director's conjecture that these temples were connected with Śakti-worship does not seem probable; for it is hard to believe that the priests of all these temples—which are found in various parts of India, from Konárik in the east to Dwárkā in the west and from Chhatarpur in the north to Halebid in the south—followed the reprehensible practices of the Śáktas. It is not, however, unlikely that the fashion to use such figures for decoration was introduced by the Śáktas and was blindly followed by the followers of other sects.

The *Report* describes the excavation work carried on at Gohilwád *timbo* near Amreli, the Sahasralinga site at Pátañ and other places. Some inscriptions ranging in dates from the second century B.C. to the seventeenth century A.D. were also discovered. Of these the legend Śri-Śiláditya on a clay-die is specially noteworthy. The clay-die was found at Gohilwád *timbo*. The title Śiláditya was borne by several Maitraka kings of Valabhi, but as a copper-plate inscription of Kharagraha I was obtained from a place nearby, it is conjectured that this Śiláditya was a brother of Kharagraha I.

The *Report* is illustrated with sixteen beautiful plates. We heartily commend it to the notice of those who are interested in India's past.

V. V. M.

REVIEW

**Review of the Indian Journal of Adult Education, Vol. 1, No. I,
edited and published by Ranjit M. Chetsingh, Hoshangabad.**

If India is to keep pace with the rest of the world and make her contribution towards the advance of civilization, it is essential that vigorous measures be taken for the spread of adult education ; and the first step in adult education is adult literacy.

Some attempts in adult education have been made in various parts of India, but, as the Editor of the *Journal* rightly says, "the need for intelligent planning, co-ordination of activity and canalising of enthusiasm and effort is paramount." We, therefore, welcome this *Journal* with the hope that it will give an impetus to adult education by placing at the disposal of workers the experience gained in the sphere of adult education not only in India but also in other parts of the world.

The Editor himself, who has received a special training in the methods and organization of adult education, proposes to write a series of articles on "Adult Education in Other Lands"; and the first issue of the *Journal* contains an informative article on the beginnings of adult education in England, from which it is clear that England also had to face great obstacles in promoting adult education, and that there is no justification for us in India to despair in spite of the immensity of the task and the magnitude of the difficulties. The same issue of the *Journal* also contains many interesting details of what is being done in different parts of India for the spread of adult literacy ; there is also a comprehensive list of the literature available on the subject.

We hope that the *Journal* will fulfil the purpose which it is meant to serve, and that it will receive encouragement and help from the public which it so richly deserves.

L. P. D'SOUZA.

I. A. B. I. 75.

**IMPERIAL AGRICULTURAL RESEARCH
INSTITUTE LIBRARY
NEW DELHI.**